

TEXTILE BULLETIN

VOL. 59

NOVEMBER 15, 1940

NO. 6

Performance COUNTS

Pre-Season "Dope" is Not a Sure Guide
To The Best Team

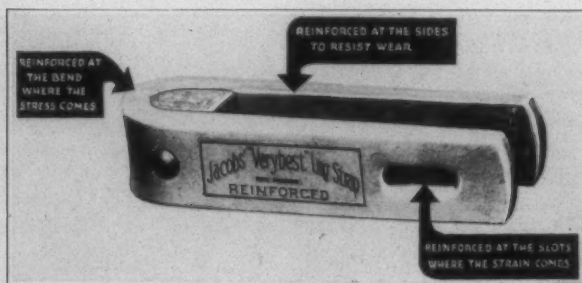


The reputation of Jacobs Reinforced Verybest Lug Straps was not built on "LABORATORY Tests."

The definite superiority of these straps has been PROVED by Certified Records of Actual Loom PERFORMANCE, showing—

- ▲ Longer Life
- ▲ Greater Resiliency and Shock-Absorbing Qualities
- ▲ Less Breakage and Longer Life to Other Loom Parts

We invite YOU to test their performance on your own looms.

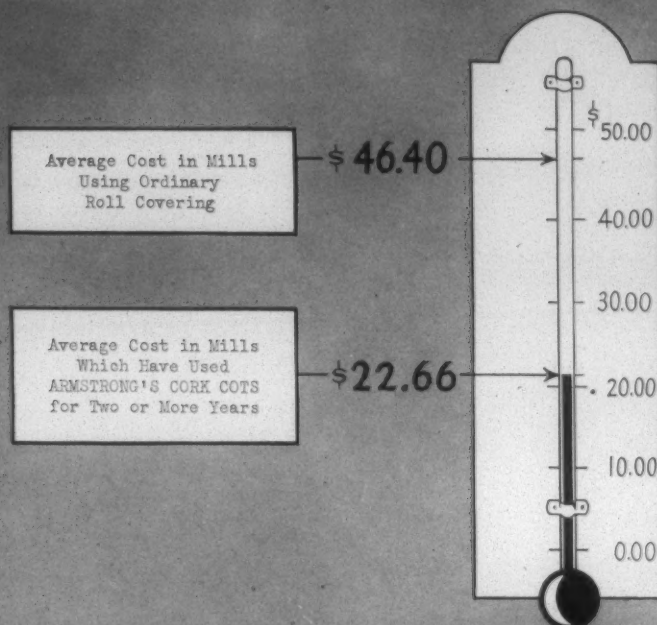


The E. H. Jacobs Manufacturing Company

Danielson, Conn. — Charlotte, N. C.

WHY MILLS TURN TO *Cork* FOR ECONOMY

HERE'S PROOF—from Mills Spinning *Coarse Numbers*—of the Economy of Armstrong's Cork Cots. (This advertisement is Number Four of a series showing savings of mills spinning different ranges of numbers on cork cots.)



AVERAGE SAVING \$23.74

ROLL COVERING COST PER MILLION SPINDLE-HOURS OF OPERATION.

CONSIDER these figures... and the convincing story they tell about the money-saving advantages of Armstrong Cork Cots. Take wear for example. These cots last longer than ordinary roll coverings; furthermore you can rebuff them—at a cost of about 1/2¢ a roll—three or four times!

Then consider the many other advantages these figures don't show. You can produce *better yarn* with these efficient roll coverings. Their higher coefficient of friction assures a stronger, more uniform product; better running work; less eyebrowing and end breakage. Finally, you get less clearer waste and fewer top roll laps when you use Armstrong Cork Cots.

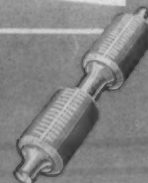
It's simple and inexpensive to change over to these cork cots. Their initial cost is on a par with that for other roll coverings, and they're quicker and cheaper to assemble. An Armstrong representative will be glad to show you production figures and savings of mills spinning your range of numbers on cork. Armstrong Cork Company, Industrial Division, Textile Products Section, 921 Arch Street Lancaster, Pennsylvania.

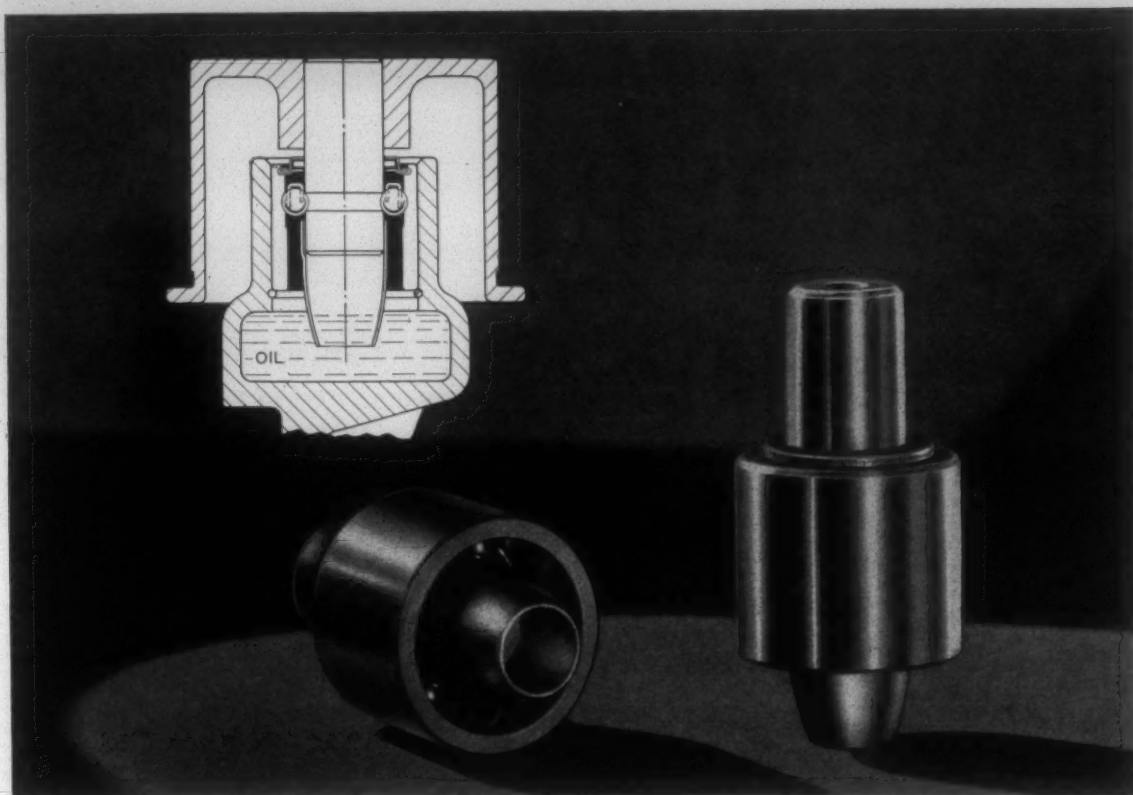


And here's a breakdown of actual roll covering costs as reported by representative mills which have been using Seamless Cork Cots for two or more years:

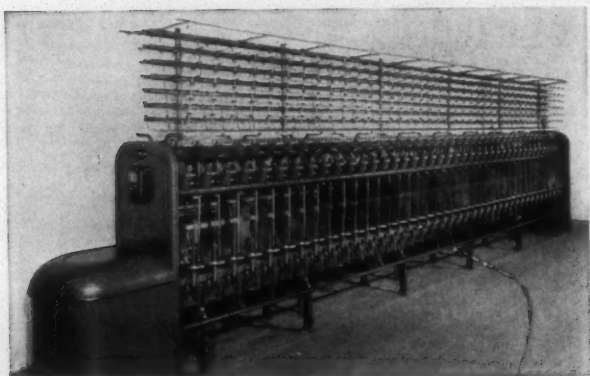
MILL	No. of Spindles	Numbers Spun	Cost per Million Spindle Hours of Operation	Type Frames
A	60K	6s - 16s	\$27.06	Long Draft
B	40K	8s - 16s	20.67	Long Draft
C	42K	8s - 24s	20.26	Long Draft

ARMSTRONG'S Extra Cushion SEAMLESS CORK COTS
CORK PRODUCTS SINCE 1860



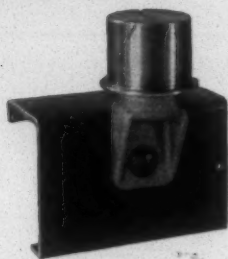


New Bearing Has Own Oiling System



↑ New Atwood 5 B machine designed for greater efficiency, speed and economy of doubling and twisting Silk and Rayon yarns. Is equipped with New Departure Vertical Tension Pulley Bearings.

Atwood Tension Pulley showing modern, clean cut simplicity of mounting. →



THIS "new departure" by New Departure is a Vertical Tension Pulley bearing now being used in some of the latest Textile Machines.

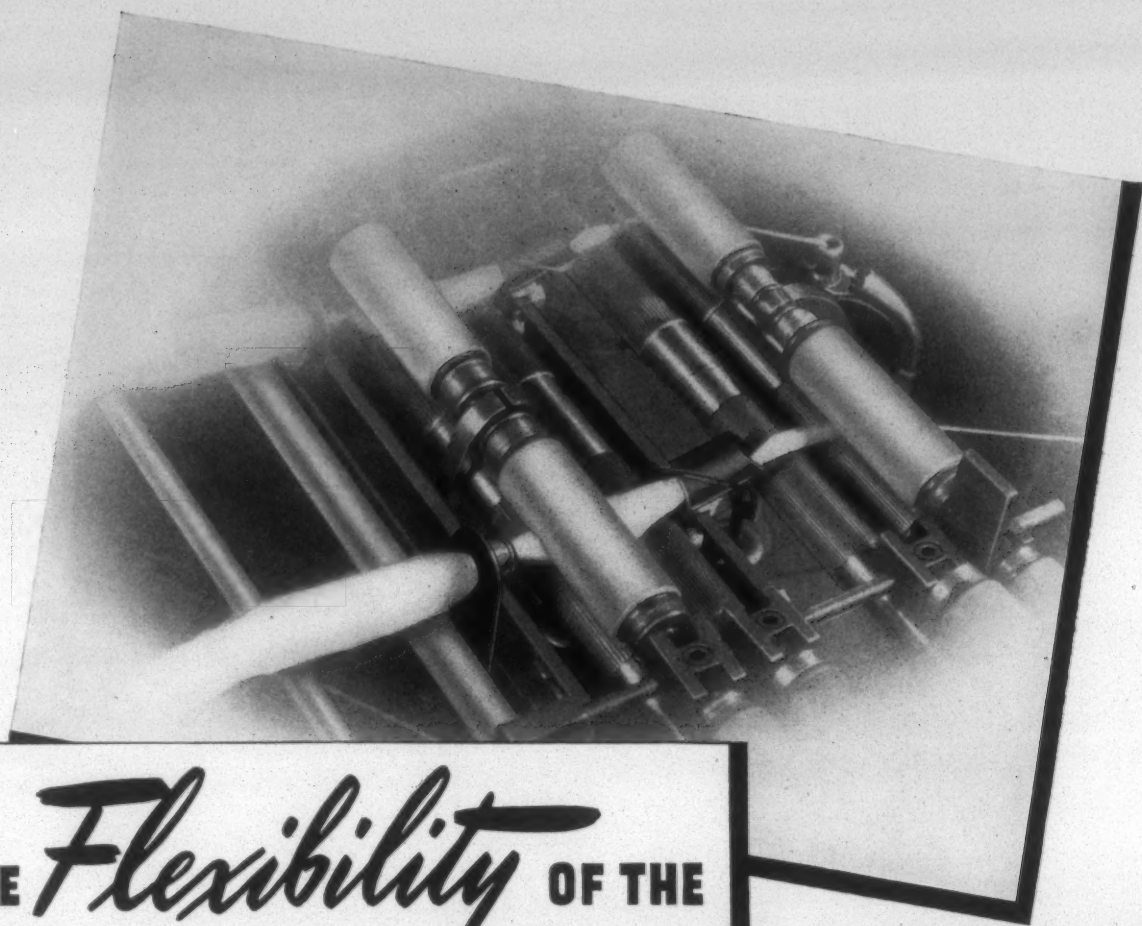
Unique in design, this bearing not only provides a vertical stub shaft for the pulley, but contains its own oil circulating system for speeds of 3500 to 15,000 r.p.m. By this carefully developed system a fine spray or mist is continually directed at the balls and races.

Being enclosed with friction-free all-metal seal, this New Departure protects its oil reservoir from dirt or lint and does not require relubrication oftener than once every two years. It requires no locknuts, screws or other parts for mounting and may be removed instantly for re-oiling and as quickly replaced.


New Departure, Division of General Motors, Bristol, Conn.

NEW DEPARTURE

THE FORGED STEEL BEARING



THE *Flexibility* OF THE H&B HIGH-DRAFT ROVING SYSTEM

 PERMITS MODERNIZATION OF YOUR ROVING FRAMES
WITH A RELATIVELY SMALL INVESTMENT.

THE H & B High-Draft Roving System on NEW H & B frames naturally assures longer and better performance with less upkeep, but if your budget does not permit new frames you can STILL step up production and lower card room costs by applying the H & B System to the frames you ALREADY HAVE, provided they are of ANY standard make.

H & B High-Draft Roving will produce 3.5 or 4 hank roving from 60 grain sliver in ONE OPERATION, drafting up to 30 in many cases and effecting quality equal or superior to that produced on conventional frames.

The heart of the system is our patented Scroll Condenser (made of Bakelite to eliminate static), which gives the sliver a half turn of twist between the two drafting zones, thus holding in the flank fibres which otherwise would become detached. This

twisting principle is exclusive with H & B and makes an important contribution to the strength and regularity of the yarn.

Numerous installations (names on request) attest to the simplicity, flexibility and economy of this system. May we recommend an installation for YOUR mill, free of all obligations?

H & B AMERICAN MACHINE COMPANY TEXTILE MILL MACHINERY

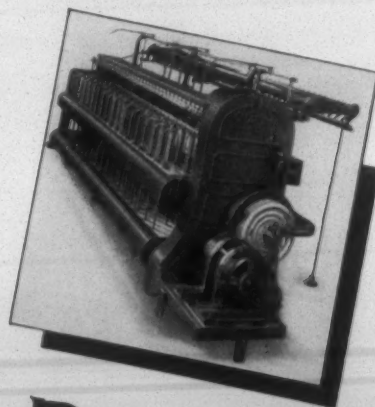
PLANT AT PAWTUCKET, RHODE ISLAND

BOSTON OFFICE: 161 Devonshire St.; ATLANTA

OFFICE: 815 Citizen & Southern National Bank Bldg.;

CHARLOTTE OFFICE: 1201-3 Johnston Bldg.

EXPORT DEPARTMENT: United States Machinery Co.
115 Broad St., New York, N. Y., U. S. A.



 Our New High Draft Roving Frame
With 12 Major Improvements

Becco

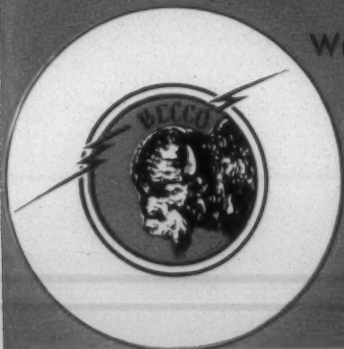
**ELECTROLYTIC
HYDROGEN PEROXIDE**

for

highest QUALITY..lowest COSTS..least SECONDS and REJECTS

..latest and most practical BLEACHING PROCEDURES in the peroxide bleaching of cotton, wool, silk, rayon and specialties. You are invited to join the select list of firms which are profiting with BECCO Hydrogen Peroxide and BECCO Technical Service.

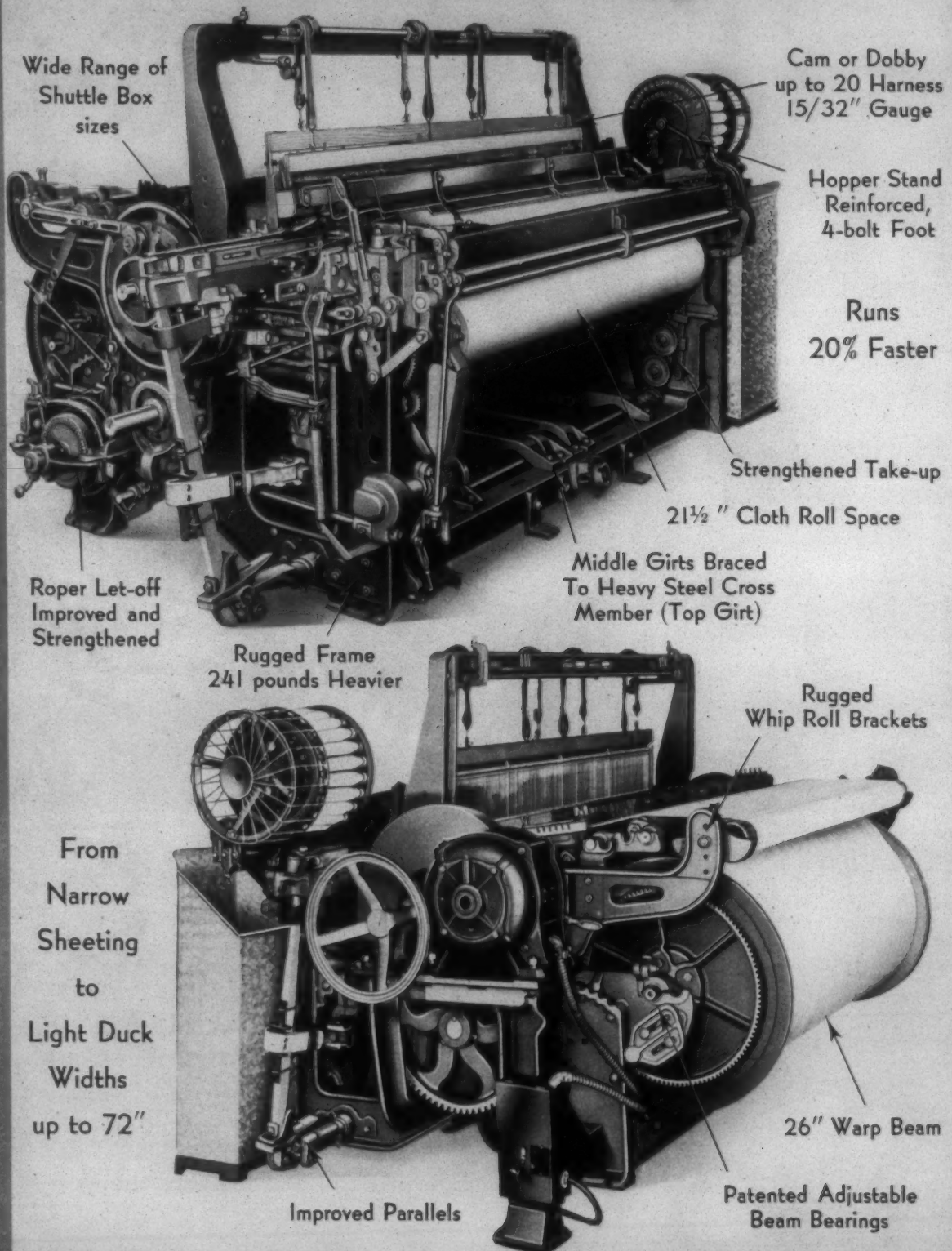
Write Becco Sales Corporation, Buffalo, N.Y.; Boston, New York City, Philadelphia, Chicago and Charlotte.



PLUS BECCO TECHNICAL SERVICE

THE NEW DRAPER XP MODEL

FOR HEAVY COTTON FABRICS



DRAPER CORPORATION

Atlanta Georgia

Hopedale Massachusetts

Spartanburg S C



TUFFERIZED Card Clothing

U. S. PATENT NO. 2,174,173

Helps You Step Into the Lead of the Quality Parade

To a three-quarters of a century reputation for high quality standards is now added a patented-precision-process which further raises quality ideals. Tufferized Card Clothing has an improved uniformity of manufacture which cuts all wires clean and sharp and seats them accurately, evenly and firmly into the foundation. With all wires exactly the same length and exactly the same distance from one another you can set your rolls closer and get more uniform and smoother carding as well as greater ease and freedom in stripping.

Write for additional information or ask our representative

HOWARD BROS. MFG. CO.

HOME OFFICE AND FACTORY: WORCESTER, MASS.

Southern Plants: Atlanta, Ga., Gastonia, N. C. Branch Offices: Philadelphia, Dallas
Canadian Agents: Colwool Accessories, Ltd., Toronto 2, Canada

Microphotograph shows how Tufferized Card Clothing wires seat square, flat, and firmly into the foundation with wires parallel...even in length...spaced uniformly

Products: Card Clothing for Woolen, Worsted, Cotton, Asbestos, and Silk Cards—Napper Clothing, Brush Clothing, Strickles, Emery Fillets, Top Flats Recovered and extra sets loaned at all plants—Lickerins and Garnett Cylinders from 4 to 30 inches and Metallic Card Breasts Rewired at Southern Plant—Midgley Patented Hand Stripping Cards, Howard's Special Hand Stripping Cards and Inserted-Eye and Regular Wire Heddles



FOR WATERPROOF FABRICS... use Jacques Wolf LUPOSEC or ACETATE of ALUMINA

TWO TYPES of water-repellents—for all types of textile fibres: cotton, wool, silk, rayon, cellulose acetate, linen, etc. Both are economical to use and both are stable. Choose the type that best fits your processing methods.

LUPOSEC

Because of the smooth, supple hand it imparts, LUPOSEC is ideal for finer

fabrics. LUPOSEC is a *one-bath* repellent. Eliminates treating fabrics twice—in baths that are not easily controlled. LUPOSEC leaves white goods colorless and odorless, and has minimum effect on dyed shades. Makes colors faster to rubbing, sunlight, washing, etc. LUPOSEC requires no special equipment. It can be applied in either a continuous or batch type machine, and can be mixed with gel-

atins, gums, and other finishing compounds.

ACETATE OF ALUMINA

Widely used for waterproofing Army and Navy supplies, Jacques Wolf Acetate of Alumina is made by an exclusive process. High in aluminum content—7% Al_2O_3 . Low in free acid content. Free of sulphates and sediment.

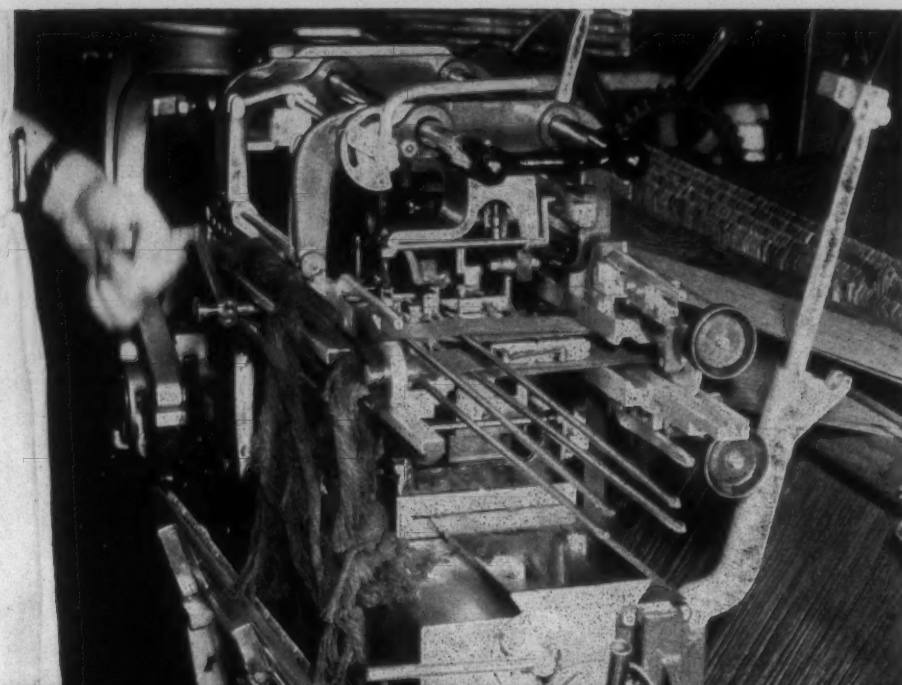


JACQUES WOLF & CO.
Chemicals PASSAIC, N. J.

WAREHOUSES: Providence, R. I., Philadelphia, Pa., Utica, N. Y., Chicago, Ill., Greenville, S. C., Chattanooga, Tenn.
Midwestern Distributor: Bradley F. Marthens, Milwaukee, Wisc.

FOR MORDANTING

Use Jacques Wolf ACETATE OF CHROME for dyeing mineral khaki and as a mordant for printing steam colors. Acetate of Chrome gives fibres extra affinity for dye-stuffs.



BARBER-COLMAN
Portable
WARP TYING
MACHINE
MODEL "LS"

WOOL WARPS...TIED IN AT THE LOOM

LOW COST WARP REPLENISHMENT - HIGHEST QUALITY RESULTS

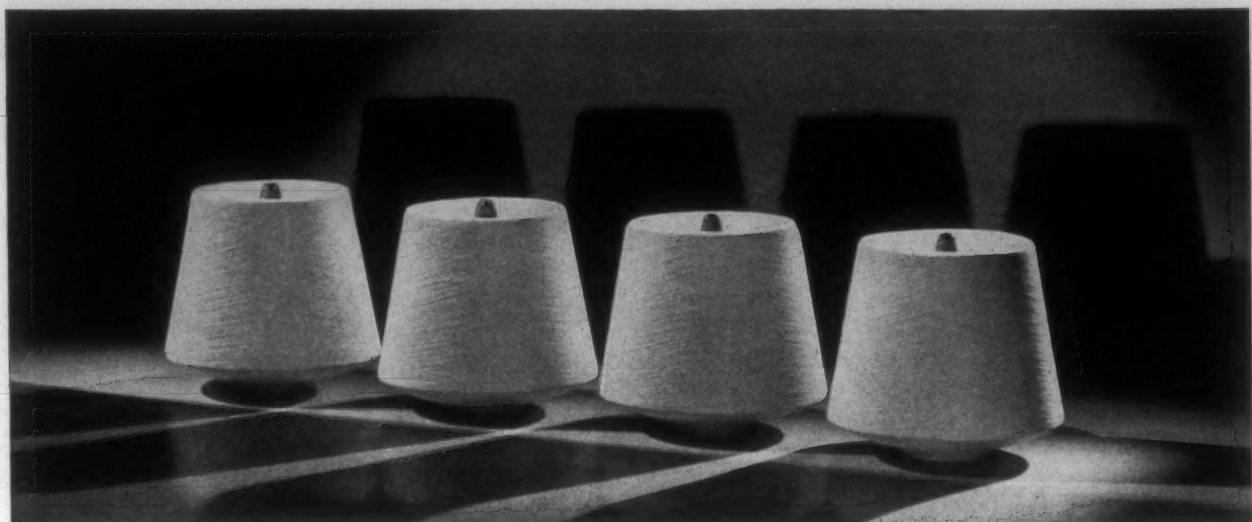


The upper picture shows the Model "LS" Warp Tying Machine in action on a "bite", or portion, of a wool warp. In the lower picture, the bite has been completely tied and is about to be cast off. Note the next bites separated, ready to be put in the machine, which is fully portable and operates in the narrow alley directly behind the loom.

BARBER-COLMAN COMPANY

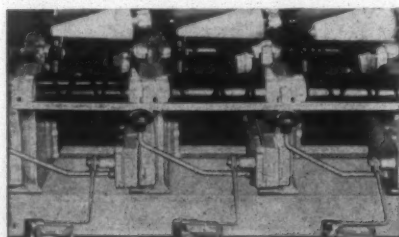
ROCKFORD, ILLINOIS, U. S. A.

FRAMINGHAM, MASS., U. S. A. • GREENVILLE, S. C., U. S. A. • MANCHESTER, ENGLAND • MUNICH, GERMANY

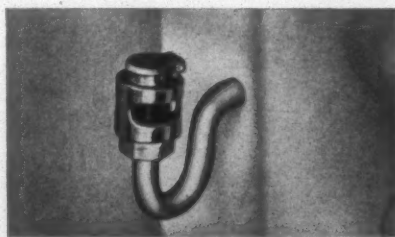


ROTO-CONES ARE FREE FROM OIL SPOTS

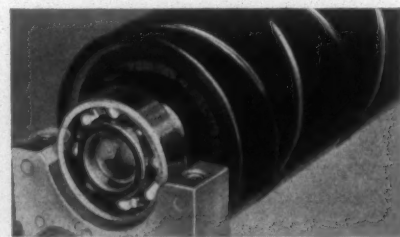
because the design of the Roto-Coner* keeps the oil where it should be



All moving parts are enclosed and sealed. Oil cannot get on yarn, traverse roll or empty bobbin conveyor. Lint can be blown off by compressed air—without fear of oil spattering.

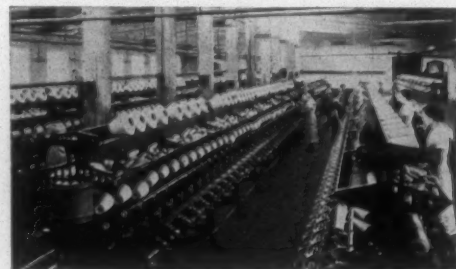


Only one check on oil level in reservoir is necessary. Oil Gauge shows when reservoir needs replenishing. All enclosed moving parts are lubricated automatically.



No cams to grease because the Rotating Traverse eliminates reciprocating parts. No need of special weekly cleaning to remove lint accumulation. Rotating Traverse runs on ball bearings.

Better packages, lower cost of winding — that's the report from many mills producing open-wind knitting cones on the Roto-Coner*. In addition to cleaner yarn, Roto-Cones are free from roll-cut or chafed yarn, are uniform in density, and are perfectly shaped for knitting. In addition to savings in maintenance and cleaning, cost of winding is reduced by higher production (550 yards per minute for knitting yarns, 450 Y. P. M. for dyeing packages, 750 Y. P. M. for warping cones).



*Reg. U. S. Pat. Off.



ROTO-CONER

THE ROTATING TRAVERSE WINDER



Reg. U. S. Pat. Off.

UNIVERSAL WINDING COMPANY

P. O. BOX 1605

PROVIDENCE, R. I.

BOSTON

PHILADELPHIA

UTICA

CHARLOTTE

ATLANTA



Myers Reviews Position of Textile Industry

A. G. MYERS, RETIRING PRESIDENT OF THE NORTH CAROLINA COTTON MANUFACTURERS' ASSOCIATION, IN HIS ADDRESS AT THE RECENT CONVENTION AT PINEHURST, N. C., URGES CO-OPERATION IN DEFENSE PROGRAM, CAUTION IN EXPANDING INDUSTRY IN WAR TIME, BALANCING PRODUCTION WITH DEMAND. IN SPEAKING OF THE RISE OF SYNTHETIC YARNS, HE SAYS: "AS I SEE IT, THE COTTON MILL INDUSTRY IS STILL IN THE HORSE AND BUGGY STAGE, WHILE OUR FRIENDS PRODUCING SYNTHETIC FIBRES ARE RIDING AROUND IN EXPENSIVE CARS AND YACHTS AS A RESULT OF THEIR WISE POLICY."

MANY things have happened in the past year; the map of Europe has been changing almost daily with the end not yet in sight, and it would be a wise man indeed who could forecast the outcome of the titanic struggle now going on in Europe. The tremendous destruction of property is of world concern, to say nothing of the loss of life of the non-combatants. Property can be

replaced in time, but the cost of rebuilding will be felt by the world at large, and no individual will escape his full share. Whether we go into the war or not, we will pay our part over the years to come, and present levels of Federal tax will seem small when compared to that which, in all probability, we will be burdened with for the next ten years.



The national election is now a thing of the past, for which we should be thankful,

and there is now no uncertainty as to who will be President of the United States for the next four years. Whether he was your choice or not, he is our President—with emphasis on *our*—and it behooves us all to support him and lend the fullest co-operation in those matters making for a united front. Under the privilege of free speech, we have gotten into the habit of using strong language in condemning those in power for all things which do not meet with our approval. Right thinking and unity of purpose must be practiced by all if America is to be spared the fate of France, Norway, and other European nations. We must back our government in every way possible in the national defense program, regardless of any sacrifices

it may entail. The quicker and the better we are prepared the less fighting we may have to do.

There has been an improvement in business conditions generally and in textiles particularly—"we planned it that way"—for which we have every reason to be thankful. During the last ten years there have been only three short periods of profitable operations for the mills, and many of us were misled in believing they would extend longer than they actually did, but may we hope that the improvement which we are now enjoying will be sustained for a sufficient length of time to enable the textile industry to put its financial house in shape to weather the storm most surely to come—and sooner than some of us may expect. Let us not be deceived into believing that present conditions will continue indefinitely, and if we would profit from past experience there will be no vast expansion in the textile industry in order to take care of this temporary emergency. Instead of expanding the producing capacity, if we are wise we will use such money as can be spared for modernizing and revamping those plants now in existence on which so little money has been spent during the last decade. After the last World War we found ourselves with 36 million spindles in place in this country, far too many to take care of normal needs, and as a consequence the industry has been in a fog ever since. Today there are about 22 million spindles in place, operating at some time during the year, which are quite sufficient to produce all the cotton goods for which there is a demand in normal times. In addition, there are plants—while true they are mostly obsolete—located in the North and South which could be started up and put into production if profits in textile products should continue to increase. There is a danger of getting prices too high, and in so doing not only would it encourage expansion and glut the market with too much goods, but it could bring on a buyers' strike. In other words, would it not be better to maintain prices so as to yield a reasonable profit to the mills with the view of a continuity of business than to have a sudden stoppage of business, resulting in curtailment and tremendous inventory losses, by reason of excessive prices, as was the case in the post-war period of the first World War? In short, let's not get all four feet in the trough! It must be remembered that a very large amount of cotton goods is

being bought by the government in its preparedness program which we cannot reasonably expect to continue; however, in the meantime the mills will have an opportunity to make money, but will likewise be afforded an opportunity to turn a goodly portion of the profits back to the government in tax levies.

Of the spindles in place in the entire country, about one-fourth of them are located within the confines of our State, therefore about one-fourth of the cotton consumed is consumed by our mills. The cotton manufacturing industry of the State, exclusive of the knitting industry, employs 106 thousand people, which is 41% of the total persons employed in all manufacturing industries in the State, with an annual payroll of approximately 75 million dollars. Taking 1923-1925 as average years, *cotton* consumed for the first 9 months of 1940 was 8% over the corresponding period of 1939 and 24% over that for 1923-1925 average. *Wool* consumed for the first 9 months of 1940 was 5% under the 1939 period and 25% over the 1923-1925 period. *Silk* consumed for the first 9 months of 1940 was 25% under the 1939 period and 30% under the 1923-1925 period. *Rayon* (both filament and staple) consumption for the first 9 months of 1940 was 8½% over 1939 and 11 times that of the 1923-1925 period. In other words, comparing the current consumption of cotton with that of other fibres, it is apparent from the above that cotton is holding its own so far as natural fibres are concerned; it has gained about the same amount as *wool* during the period since 1923-1925, while *silk* fell off sharply. However, the real red light shows when we come to the *synthetic fibres*. Whereas, *cotton* increased approximately 25% in the first 9 months of 1940 against the same period of 1923-1925 average, *rayon* increased 11 times, or 1100%. It is therefore noted that synthetic fibres are out-stepping cotton at an alarming gait, and unless the cotton industry spends more money on research and exploitation there can be put one answer—and it doesn't take a very wise man to guess the answer. Millions of dollars are being spent by the producers of synthetic fibres in research and advertising, but it is nothing short of a major operation to extract 2 cents per bale from the cotton mills on cotton consumed as a contribution to the Cotton-Textile Institute's fund for advertising cotton. Cotton mill executives just cannot see the necessity for spending any money for research and advertising, but continue to grind out goods in volume, regardless of market conditions, of about the same style and character as was done 25, 40 and 50 years ago. As I see it, the cotton mill industry is still in the horse and buggy stage, while our friends producing synthetic fibres are riding around in expensive cars and yachts as a result of their wise policy. I cannot emphasize too strongly the necessity for doing more research work and advertising our wares. A contribution of 25 cents per bale on all cotton consumed would pay the mills handsomely if the aggregate sum thus raised were used in intelligent research and advertising.

Proper regard has not been had for balancing production with demand, and as a consequence, for the past ten years there has been produced a surplus at all times with the exception of the three short periods above referred to. And the merchandising policy of accepting what is offered rather than selling with a margin of profit can never be corrected as long as there is a disposition on the part of the mills to create more goods than there is a demand for. Exports of cotton goods are dwindling from year to year,

and if the dictators should win this war—and God forbid such a calamity—not only would we lose all of our export business in time, but our own domestic field would be invaded to such extent as tariffs would permit. On the other hand, if England, in time, should win the war, European nations will find themselves bankrupt and we could only place goods where he would be in position to take goods in exchange as none of the European nations will have gold with which to pay for goods or with which to settle trade balances in our favor. This is largely true now with South America. And since we produce about everything that we need, we will be seriously handicapped in exporting any great volume of goods regardless of how the war may end.

In times gone by there has been a great hue and cry that Federal laws governing hours of labor and wages were putting the textile industry out of business. Our Federal laws are not perfect, but I am of the opinion that a Federal law, fairly administered, governing hours and wages for the textile industry as a whole is much more to be desired than the laws passed by the States individually. It is my opinion that the present scale of wages paid by the mills and the man hours operated are eminently fair to both employer and employee and, as I see it, if the mills of our State are put on an equal footing in the matter of hours, wages and freights with our competitors in other States, there is no reason why they cannot meet competition. Until recent years the textile industry has been in bad repute due to the low wages paid and the long hours required, and I think we are to be congratulated that it has been lifted to a higher plane, even though it took a Federal law to do it.

The Walsh-Healey Act should be repealed since there is now no need for it, the Fair Labor Standards Act having since been put on the statute books, but the latter act should be amended so as to clarify its provisions. And our experience under the Unemployment Compensation Act, a State law based on the Federal Social Security Act, would indicate that several amendments thereto would be helpful to both employer and employee.

If there are inequalities with other sections by reason of the mills in this State owning villages for which they are not getting an adequate return in the way of rents, it seems to me this could easily be corrected by charging a rate for rent and other services furnished which would cover these costs and at the same time return a reasonable interest on the investment. Many mills have found it desirable to sell their tenements to the employees at reasonable prices and on easy terms, and those mills which have done this are highly pleased with their experience. It seems to me that if our employees are permitted to pay their way it would remove an attitude of paternalism on the part of the mills which is neither desired nor appreciated by the employees. The property owner makes for a more efficient worker and a better citizen in the community.

In conclusion, I want to thank the members of the Association for the honor bestowed upon me in electing me President for the year just ended, and to express my appreciation for the very fine co-operation which has been given me at all times by Hunter Marshall, our efficient Secretary, and his assistant, Miss Robinson, and for the work of the various committees. Fullest co-operation has been had from all.

Erecting, Overhauling and Fixing Looms

By Frank D. Herring

Following is the tenth chapter of a series of articles on loom fixing and loom maintenance by a practical mill man. Accompanied by illustrations of all portions of a loom, this series will go into minute detail explaining the various motions and their settings, timings, repairs, etc.

Setting the Filling Motion

First see that the filling fork slide slides freely in the filling motion stand, making sure that the lay has been properly positioned and the swords and lay guide securely tightened. Also make sure there is no excessive lost motion in the crank arms.

Turn the lay to extreme front center position and line the fork with the fork grate, and allow the filling fork to project through to where the extreme end of it is about $3/32$ of an inch past straight line with the back side of the back box plate adjacent to it, and then tighten the filling motion stand securely. Turn the filling cam to point where the filling cam follower end rests on the highest part of the filling cam.

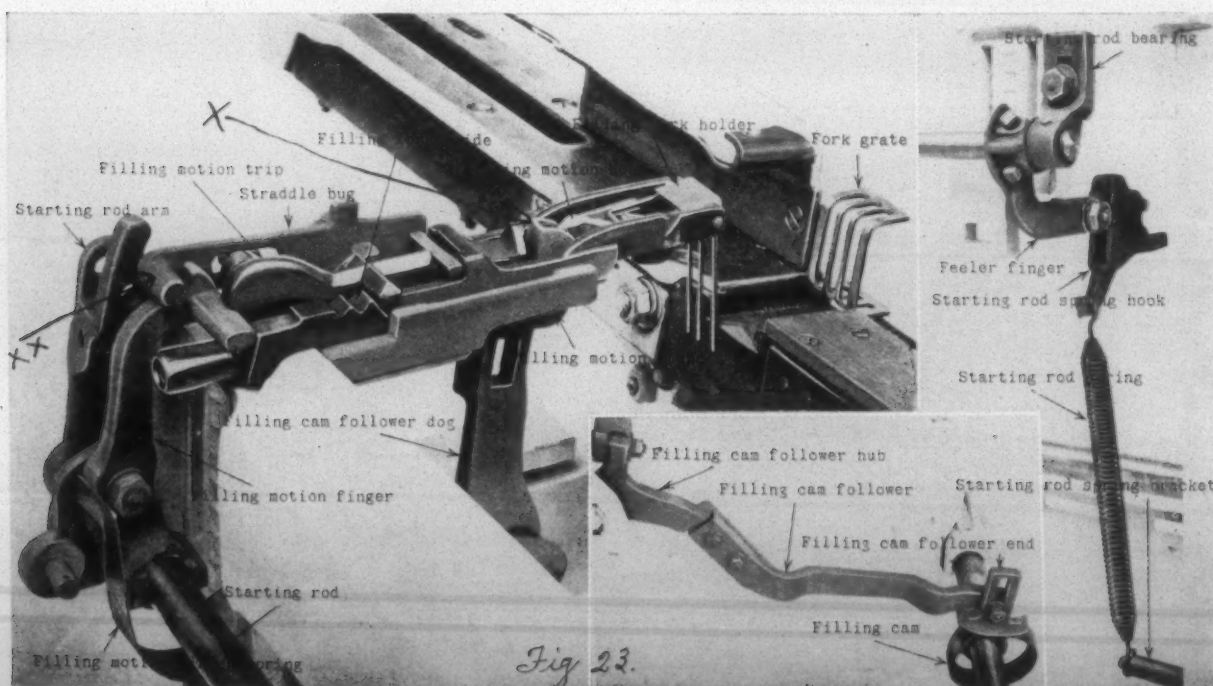
Adjust the cam follower end to allow about $1/16$ of an inch play between the filling cam follower dog, shown in

Figure 23, and the front end of the filling motion trip. Set the filling cam follower dog about $1/8$ of an inch higher at top point, indicated by X mark in Figure 23, than the front end of filling motion trip.

See that the filling cam follower dog sets in the center of the opening of the filling fork slide, then tighten the filling cam follower dog and end securely. Turn the lay to extreme front center position, with the shuttle in the shipper handle end of loom, and set the filling cam to a point where the filling fork holder loop will just barely clear the hook on the filling motion hook, or snake head. Be sure to tighten the filling cam securely at this point.

Adjust the starting rod bearings to where the filling motion finger will not bind on the end of the filling fork slide, but work freely and rest against the place provided for it on the end of the filling fork slide. Pull the shipper handle on in running position and adjust the filling motion shipper to where one end will rest against the shipper handle and the other end against the back end of the filling motion stand. Push the shipper handle off and make sure that the filling motion shipper works freely.

Turn the crank arm one revolution, throwing the shuttle to the battery end of loom, allowing the filling fork



loop to catch on the filling motion hook, thereby pulling the filling fork slide back. See that the filling motion shipper will push the shipper handle off, then set the mechanism connecting the filling fork slide with the take-up so that the take-up is disengaged and allowed to let back the desired amount. Tighten all bolts and screws securely, using lock washers when possible.

Comments On Setting the Filling Motion

I do not include the setting of the battery under the above heading, because most all looms are now run with the filling feelers and do not change or transfer from the filling fork. The filling fork only stops the loom off and disengages the take-up when the filling breaks or runs entirely off of the bobbin. Therefore I only cover the filling motion here up to the battery; setting the battery, the shuttle feeler and the filling feeler is covered at another place.

When setting the filling motion, it is first absolutely necessary to position and tighten the filling motion stand, because all other settings of the filling motion are dependent on the position of the filling motion stand. Should some of the settings be made and then the filling motion stand moved the setting would be thrown off.

Before lining the filling fork with the fork grate, be sure that the swords, the rocker shaft collars, the parallels, the crank arms and the lay guide has been correctly positioned and securely tightened. The prongs of the filling fork should not project too far through the fork grate, for if they do the fork will be raised too high and the strand of filling will sometimes become looped around the fork and thereby stop the loom off, or in some cases make thin places in the cloth.

Also make sure, after tightening the filling motion stand, that the fork prongs do not extend down far enough to strike the lay. The fork prongs should clear the lay about $1/16$ of an inch whenever the lay is about one inch back from front center position.

Filling looping on the filling fork is usually caused by the rocker shaft, or the rocker shaft bearings being excessively worn and allowing the lay to become too low in relation to the filling prong. This can be corrected by turning the rocker shaft or replacing the worn shaft or bearings, or both.

The filling motion trip is of no use unless the filling motion is set up to transfer from the fork. Its only duty is to stop the loom off on the third successive transfer or engagement of the fork. When the filling feeler is used, the loom should be stopped off on the first engagement of the filling fork. This is accomplished by the straddle bug engaging the filling motion shipper and thereby pulling the shipper handle off.

When using what is commonly known as the double change, or changing from the filling fork and also the filling feeler, the straddle bug is turned over so that the finger on it, indicated by XX mark, Figure 23, will engage the starting rod arm instead of the filling motion finger. When turned over as mentioned above, the straddle bug ceases to be the stopping off agent and the filling motion trip comes back into play and stops the loom off on the third successive engagement of the fork.

The filling fork holder is attached and held in place, on the filling fork slide, by a small pin extending through the holder and the end of the filling fork slide. It is of course

necessary that no lost motion be allowed here or the fork prongs will not stay in line with the fork grate. The pin and holder will sometimes become rusted or corroded and prevent the free movement of the fork, and thereby cause thin places to be made in the cloth. This can best be prevented by putting a few drops of gasoline on the holder and pin occasionally. This is much more desirable than oil, because it will not cause so much lint accumulation and will penetrate more readily in between the pin and the holder and cut the rust.

The filling motion hook is held in place by a small pin extending through the hook and the top of the filling cam follower dog. The hook and also the pin will wear and cause considerable trouble unless they are kept properly lubricated, and this is one place on the loom that is seldom oiled; a few drops of oil applied here once a week will take care of it.

The filling fork prongs should never be bent or notched with a chisel. The loom builders have designed them to give satisfaction just as they are received by the mill, and if the proper adjustments are made, and kept at all times, they will give satisfactory results. When oiling the filling motion hook, it is wise to apply a few drops to the filling motion stand also, as this will insure the easy sliding of the filling fork slide.

Setting the Midget Filling Feeler

First remove all excessive lost motion from the crank arms and the rocker shaft, then tighten the shuttle spring and make sure that the bobbin sets straight in the shuttle. Put the shuttle in the box in the shipper handle end of the loom. Select and put in the shuttle a bobbin with no yarn on it except the bunch, as shown in I, Figure 33. Check the pickers to determine that they are in perfect parallel with the shuttle points and in good condition in

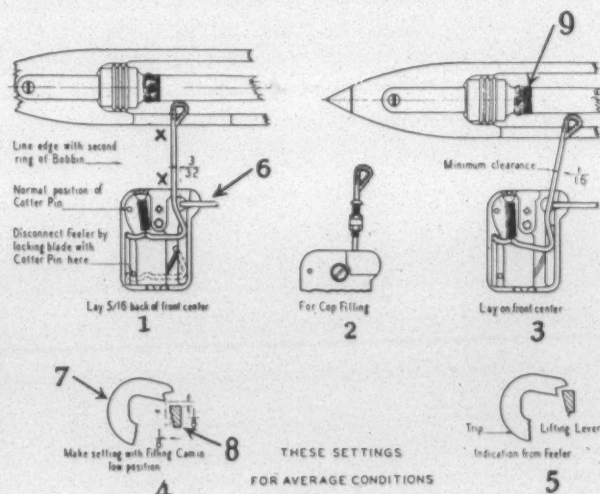


Fig. 33

every way. Examine the feeler blade and make sure that it is perfectly straight between the points indicated by X mark in I, Figure 33.

Turn the lay to $5/16$ of an inch back from front center and position the feeler case to have the tip end of the feeler blade to touch the empty bobbin, as shown in Figure 33. Before tightening the feeler case at this point, see that the feeler case sets square, or approximately at right

(Continued on Page 56)

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Standard Regain of Cotton Yarns

THE United States Department of Commerce has issued a recommended revision of Regain of Mercerized Cotton Yarns, Commercial Standard CS11-29 (TS-2969) for the approval or acceptance of producers, distributors, and users of cotton yarns. The new title would be Standard Regains of Cotton Yarns.

Following is the revision as proposed:

Purpose

1. The purpose of this commercial standard is to establish standard specifications and method of test for regains of cotton yarns for the guidance of producers, distributors, and users, and to provide a uniform basis of determining the "standard weight".

Scope

2. The standard covers standard regains for mercerized and unmercerized cotton yarns, definitions, method of test, and tolerances, and illustrates the manner by which manufacturers and distributors may guarantee compliance with the commercial standard.

Definitions

3. *Regain.* The term "regain" for the purpose of this standard is defined as the difference between the weight of the cotton yarn as sampled (W_o) and its "dry weight" (W_d) expressed as a percentage of the "dry weight", i.e.,

$$\text{regain} = \frac{W_o - W_d}{W_d} \times 100.$$

4. *Standard Regain.* The term "standard regain" for the purpose of this standard is defined as the regain formally adopted for use in calculating the "standard weights" of shipments or deliveries of cotton yarns.

5. *Moisture Content.* The term "moisture content" for the purpose of this standard is defined as the difference between the weight of the yarn as sampled (W_o) and its "dry weight" (W_d) expressed as a percentage of the original (sampled) weight, i.e.,

$$\text{moisture content} = \frac{W_o - W_d}{W_o} \times 100.$$

(The moisture content is equal to the regain multiplied by the ratio of the "dry weight" to the original (sampled)

weight of the yarn, i.e., $\frac{W_d}{W_o}$).

6. *Dry Weight.* The term "dry weight" for the purpose of this standard is defined as the weight of cotton yarn dried in an oven at 220° F (105° to 110° C) until the latter of two consecutive weighings, taken not less than ten minutes apart, shall be not less than the former by more than 0.1 percent of the former weight.

7. *Standard Weight.* The term "standard weight" for the purpose of this standard is defined as the dry

weight of cotton yarn plus the weight equivalent to its standard regain.

Requirements

8. The standard regain of *cotton yarn (unmercerized)* shall be 7 percent.

9. The invoice weight of *cotton yarn (unmercerized)* having a regain below 6 or above 8 percent shall be adjusted by the seller or buyer, as the case may be, to "standard weight". The invoice weight of such yarn having a regain of 7 ± 1 percent shall not call for adjustment.

10. The standard regain of *mercerized cotton yarn* shall be $8\frac{1}{2}$ percent.

11. The invoice weight of *mercerized cotton yarn* having a regain below $7\frac{1}{2}$ or above $9\frac{1}{2}$ percent shall be adjusted by the seller or buyer, as the case may be, to "standard weight". The invoice weight of such yarn having a regain of $8\frac{1}{2} \pm 1$ percent shall not call for adjustment.

Methods of Sampling and Tests

12. Not less than three sample tubes, cones, or skeins of cotton yarn shall be taken from at least one package in every ten packages or less delivered immediately after the delivery is weighed. Two of the three samples shall be taken from opposite sides and the third from near the center of the package.

13. The samples selected shall be taken from the packages and accurately weighed within a time limit of approximately 45 seconds. The weight of the cones or tubes shall be deducted to obtain the net weight of the yarn. If it is not practicable to weigh the samples at point of delivery, they shall be placed immediately in air-tight containers and forwarded to the laboratory at which test is to be made.

14. The method of sampling cotton yarns other than those in skeins or on tubes and cones shall be as mutually agreed on by the buyer and seller.

15. The samples for test shall be dried in an oven to dry weight (see paragraph 6) and the regain calculated (see paragraph 3). The average of the regains of the individual samples shall be considered the regain of the entire lot represented by the samples.

Guaranty

16. The following statement, which may be printed, typed, or stamped, or otherwise indicated on invoices, illustrates the manner by which cotton yarn manufacturers or distributors may guarantee that the involved weight is based on a regain within the limits specified herein:

The _____ guarantees that the weight of this _____ cotton

(mercerized) (unmercerized)

(Continued on Page 54)

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Good Mill Housekeeping Discussed at Northern N. C.-Va. Meeting

The first and second parts of this meeting of the Northern N. C.-Va. Division of the Southern Textile Association, held at Spray, N. C., on October 5th, were published in the October 15th and November 1st issues. The report, up to this point, has covered an excellent talk by Luther Hodges, discussion of the handling of picker laps, stripping of cards, placing roving cans, handling filling yarns, storing filling yarns, conditioning yarns, storing warps, cleaning windows. The remainder of the report follows, with the discussion being led by E. M. Holt, manager of the Erwin Cotton Mills Co., Cooleemee, N. C.:

Types of Glass

Chairman: The last part of that question is: "What type of sash and glass do you have in your windows?" Mr. L., have you anything to say on that?

Mr. L.: We have various types of glass; some wire glass, to meet the underwriters' specifications, and some plain glass. Plain glass, of course, is easier to keep clean and probably gives the best appearance all around in the mill. The other glass is very hard to clean.

A question I should like to ask is if anybody has any problem of goods fading in storage where there is a good deal of light coming in?

Chairman: You mean goods stored in bins?

Mr. L.: In bins or otherwise.

Mr. B.: We have the ribbed glass and have a row of roving bins right along under those windows. We are supposed to keep curtains over them, but you know when a boy goes for roving he is not going to pull the curtain back over it every time. The spinner got some roving the other day that was so faded he could not use it.

Chairman: Curtains and covers are bad things to use, because it is hard to keep them down. Also, they get dirty.

Spitting On Floors

Certainly the next question is of interest to all of us. It reads: "What method do you use for keeping people from spitting on your floors? What type of cuspidor do you use, and how are they placed? How do you clean your floors, and what schedule do you follow?" Has anyone anything to say about that?

Mr. C.: We do not keep them from spitting on the floor, but we post notices very prominently asking them not to spit on the floor, and whenever we see a place where a person has spit we find out who did it and go and talk to him about it. If you do that you hardly ever have to do it more than twice. I know personally that at least

99 per cent of the spitting on the floor can be eliminated by explaining to your people that it is insanitary and by putting spit boxes around where it is convenient for them to use them. I venture to say that it is very seldom you will see that anybody has spit on the floor in our place. We have accomplished that by putting these spit boxes around. They are made of cast iron, and the box has a lid of tin on it, with a handle on it. It is at a convenient height for them to raise that lid, and they raise the lid and spit and drop the lid back again.

You may wonder about those boxes getting dirty. They do get dirty. We have them changed twice a week. A colored man takes out the dirty box and puts up a clean one, with fresh shavings in it. He takes the dirty boxes out to the back of the mill, opens them up, and turns the hose on them. He stands off where he will not be splashed and cleans them in that way.

Mr. B.: How do you catch the offenders?

Mr. C.: You can get them educated to the point where you will not have many offenders. We start off by explaining to the man that it is insanitary. The next time we might be a little harder, and the next time we might be pretty determined about it.

Mr. B.: It is not only insanitary but it is dangerous. I have known of instances in which someone stepped on spit and fell and had a broken or sprained ankle or something like that. But my trouble is to find the offender.

Chairman: The power of suggestion or the psychological effect can be very well illustrated. In our mill towers and in most of the corners there is painted a little pure white place. I do not chew tobacco, but if I did I would be looking for a place to spit. If I saw a pure white corner (and corners are where folks spit) I just could not spit in it; that is all. I am no different from anybody else. That psychological effect is proven in our place. I have seen just one time spit in a corner that was painted, and that was because it needed painting; it was dirty and dull. We all know the power of suggestion. You remember the story of the girl whose beau kept spitting in the fireplace. She kept pushing the cuspidor toward him, until finally he said: "If you don't stop pushing that thing over near me I'll be bound to spit in it."

A Member: If you provide a place for them to spit it improves their aim tremendously.

Mr. E.: We have some of that yet at our place but we have not nearly so much as we used to have. I think the answer to the problem of spitting is to train the folks.

(Continued on Page 60)

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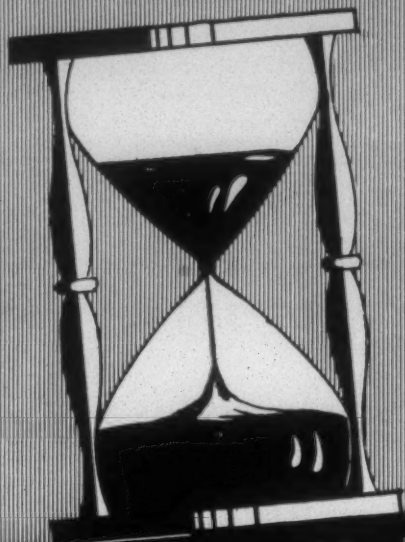


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Frank Coker Promoted By Du Pont

Charlotte, N. C.—Frank H. Coker, of Charlotte, district sales manager for the rayon department of E. I. du Pont de Nemours & Co., has been promoted by the company to the position of manager of staple rayon sales in the United States. Mr. Coker has been in charge of rayon sales in this district for the past ten years, during which time the increased use of rayon in the textile industry has been reflected by a ten-fold increase in this business for the company.



Mr. Coker started with the du Pont subsidiary company Du Pont Rayon Co., in 1923 in the credit department. In 1924 he was named credit manager there and in 1926 he was named district sales manager in charge of sales in the North. In 1928 he was transferred to Old Hickory, Tenn., as district sales manager, in charge of sales in the South. In 1929 he moved his headquarters to Charlotte, where he has been since that time.

Mr. Coker, a member of the board of directors of the Charlotte Country Club, a member of the Benedicts Club and the Ace of Clubs in Charlotte, feels that the South will be the leader of the textile industry of the United States in the future, and plans to spend considerable of his time in the South visiting the mills he has been contacting in recent years.

F. F. Hubach, of New York, will come to Charlotte to succeed Mr. Coker, and an announcement of his taking over the office will appear in the December issue.

Charlotte Industrial Property Changes Hands

The large industrial property in Charlotte, N. C., which was formerly the McClaren Rubber Co., has been sold by the Dayton Rubber Mfg. Co., Dayton, Ohio, to the Industrial Terminals, Inc., Charlotte, of which Caddiss F. Morriss is president and John E. Fox is secretary and treasurer.

The real estate consists of six and one-half acres, with Piedmont & Northern Railroad side tracks running through the property. It is located on the corner of West Palmer and Clarkson streets, which is the section where many of the major truck transportation companies have their terminals.

The several buildings have a total floor space of approximately 50,000 square feet, and are reinforced steel and concrete and steel sash construction, with sprinkler system, elevators, heat, etc.

The new owners plan to renovate the buildings and divide them up to suit any tenant requirements. They also plan to offer office facilities for salesmen who wish to use the storage facilities.

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Piedmont Division, S. T. A. Digs Into Wage and Hour Law

THE Piedmont Division of the Southern Textile Association met in the ball room of the Charlotte Hotel, Charlotte, N. C., on Saturday morning, October 19, 1940, and was called to order at 10 o'clock by the Chairman, B. M. Bowen, superintendent of the Salisbury Cotton Mill, Salisbury, N. C.

A stenographic report of the meeting follows:

Chairman Bowen: Our program this morning is to be devoted to an address on and discussion of the provisions of the Wage and Hour Law as they apply to the textile industry. We had hoped that Maj. A. L. Fletcher, the Regional Administrator of the Wage and Hour Division of the United States Department of Labor could be present, but it was found that this was impossible and Major Fletcher sent his assistant, Stephen R. MacRae, who will now speak to us.

Address of Stephen R. MacRae, Columbia, S. C., assistant to Maj. A. L. Fletcher, Regional Administrator, Wage and Hour Division, Department of Labor:

Mr. Chairman and Gentlemen: I should first like to express Major Fletcher's regret at not being here, but it is practically impossible for him to get around to all the places that are demanding his attention.

I have had the pleasure of being with the Division since it started, in October, 1938, and I have also had the advantage of having been all over the country. I am originally from North Carolina, but my experience has been very varied. I was in Detroit about a year and then went to New Orleans and was there about a year, and I have also been in Texas.

The regional office is in Raleigh, N. C., where Major Fletcher is located, and our main office in South Carolina is in Columbia. The State Department of Labor does our inspection work in North Carolina, there being a State agreement to that effect; but in Columbia I have some 20 men who are doing our Federal inspection in South Carolina, without any State agreement.

We know that in the State of South Carolina we are making great progress. In fact, I have not a case in South Carolina of a complaint; we have cleaned up every complaint case in that State. We make routine inspections, of course.

The administration and also the Administrator, Major Fletcher, realize the complications of this law. We are often surprised that some employers understand as much about it as they do. We understand that education is the biggest factor in getting people to comply with it. We have to explain to employers what the regulations are and what the law is. I do not believe I have handled a case in which the employer violated the law intentionally and in which he did not believe he was complying. The em-

ployer actually thought he was not covered by the law. Of course, they want to think that, and when people tell you what you want to hear naturally you are eager to listen. That is not so when they tell you something you do not want to hear.

The law is that you shall pay for overtime once and a half the regular rate of pay. That does not mean once and one-half the minimum rate. If the man is being paid at the rate of 50 cents an hour, then for overtime he is to be paid 75 cents an hour.

I have run into a case in South Carolina within the last 30 days in which a man was working some 60 employees and violating the law right along, I think absolutely unintentionally. In fact, his lawyer told him that he was not covered; the lawyer came to my office and told me that and said that if anyone was to be prosecuted he should be and not the employer. That employer was not a highly educated man, and he took the word of his lawyer. When we got it cleared up the man owed in back wages about \$20,000. I got a statement of his financial affairs, and he was worth about \$900. What are you going to do in a situation like that. It was impossible for him to pay his workers the back wages. You have to use common sense. And I might say that if there is any man fitted to administer this law it is our Regional Administrator, Major Fletcher, and Mr. Fleming, the head of the Wage and Hour Division, is also a very practical man.

I understand that the subject you want to discuss is the practical end of the law and how it affects you gentlemen in the textile industry. The textile industry is in compliance to a great degree. In the violations we have found there has been some chiseling. I do not mean that I think the head men did it intentionally but that it was done in the different departments and different places where the men wanted to get production—where a man was in charge of a department he was cutting himself a big piece of cake with the big fellow. Since that situation has come in here I have changed my tactics. Ordinarily our inspector, in visiting a mill, would go into the departments in which the violations were reported. I do not do that now. Where a violation is reported I go to the president of the company, and I go over the matter with him and check of the names that we have reported as violations. That is having the desired effect; we start at the top and go down, and we are making our inspections in a much shorter time.

Those violations I have found in the textile industry have not occurred, as I say, because the manager or the head of the company wanted to violate the law. In fact, in no case have I found that the head of the company had told the department heads to violate it. They were doing it on their own volition, and we could not prove that the

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head of the company knew anything about it. There is one thing I should like to impress upon you. Where there is any criminal intent in such violations, where it is done willfully, without the knowledge of the head of the company, and the department heads have been instructed to comply with the law, our indictment is brought against the head of the department and not against the head of the company, because the department head is the one that violated the law, and not the big fellow at the top. In other words, we go back to the person who is responsible for the violation. Many foremen and department heads, I have found, have not realized that. Very unfortunately, in bringing a few indictments in a certain part of the country I had to name the head of a department for the violation, for the reason that he was the one that broke the law, and not the head of the company. In another case the head of the company told the department heads to follow the law, so that cleared him.

That shows you two or three of the responsibilities of the foreman or department head. He is responsible for his employees as to whether or not the law is being complied with, unless he has direct instructions from his superior. That occurs very seldom, because any executive who will get his neck out that far is very foolish.

There has been quite a contention in the Division and also with industry on the question of what is an executive or administrative employee. The law stated that any person employed in an executive or administrative capacity, who has the power to hire and fire or whose recommendation is followed as to hiring and firing or promoting or devoting the employees under him, and who does no substantial amount of work of the same nature as a non-executive employee, and who draws \$30 a week or more, would be exempt as to hours. That sounds very simple, but when it is analyzed it is not so simple. Such an employee has to be the head of the establishment or of a recognized department thereof. The words "executive" and "administrative" from the standpoint of definition mean the same; there is no difference between an administrator and an executive, so they gave them the same qualifications. But within the last two weeks the Administrator has made a distinction, for the reason that the manager of a business may have an assistant who would make probably \$5,000 a year, but such an assistant would not be the head of any department; he is assistant to the head of the company. He did not fit the qualifications. So we have had to make a distinction and say "administrative employees," which would take in that assistant manager. It takes in administrative employees making at least \$200 a month. It does not change the previous definition as to executive or administrative but does take care of those employees that we have encountered all over the country.

Another contention as to the exemption was that if you have a man who is head of a department he is exempt. To clarify it I shall name an example; for instance, a second hand in a textile plant. In some instances the second hand is exempt and in some instances he is not. I have found plants in South Carolina where he is exempt and have found other plants in which he is not. The industry cannot understand why all second hands are not exempt. The reason is that they have different functions. We do not go by the title of the man but go by the functions he performs. One company in South Carolina had some 40

or 50 second hands who worked under the foreman and went around and supervised the work of other employees in that division, but the foreman was the head of it. The second hand, among other things, fixes looms. So in determining his work we found out that about 40 per cent of his work was fixing looms, which a non-exempt employee does; so therefore he was doing much more than a substantial amount of work of the same nature as that of a non-exempt employee. In other words, he was knocking a loom fixer out of a job. The law did not mean for such an employee to knock a non-exempt employee out of a job; the first intent of the law was to spread employment. When we fixed hours and exempted executive employees we did not mean to knock non-executive employees out of a job. So each case is different; no two are alike.

Near the mill where the second hands were not exempt, only a very short distance from it, we found a mill where the second hands were exempt. There was a row there. But the second hands in the second place we visited did not do any loom fixing; all they did was supervision. They did not do any work of the same nature as that done by a non-exempt employee. I satisfied myself of that fact. In that mill there were three shifts, and there was a foreman of the department. During each eight-hour shift one of the second hands was in charge of the department. In the first case at no time was the second hand the head of the department. So that is how those things come about.

On October 24th, which is five or six days off, the number of hours will be decreased to 40. That means that employees will have to be paid your regularly hourly rate for 40 hours, and whenever the number of hours exceeds that one and one-half times your regularly hourly rate will have to be paid for the overtime. That regulation stays in effect—the 40 hours maximum and 30 cents minimum—until 1945. There will be no more changes until that year, and then the minimum rate becomes 40 cents. Then it becomes 40 hours maximum and 40 cents minimum. But you have five years before that change goes into effect.

In a few industries there have been minima set that differ from those stated in the law. In the textile industry the minimum is 32½ cents an hour. So after October 24th your minimum will be 32½ cents and not 30 cents.

If anyone wants to ask any questions I shall be glad to answer them.

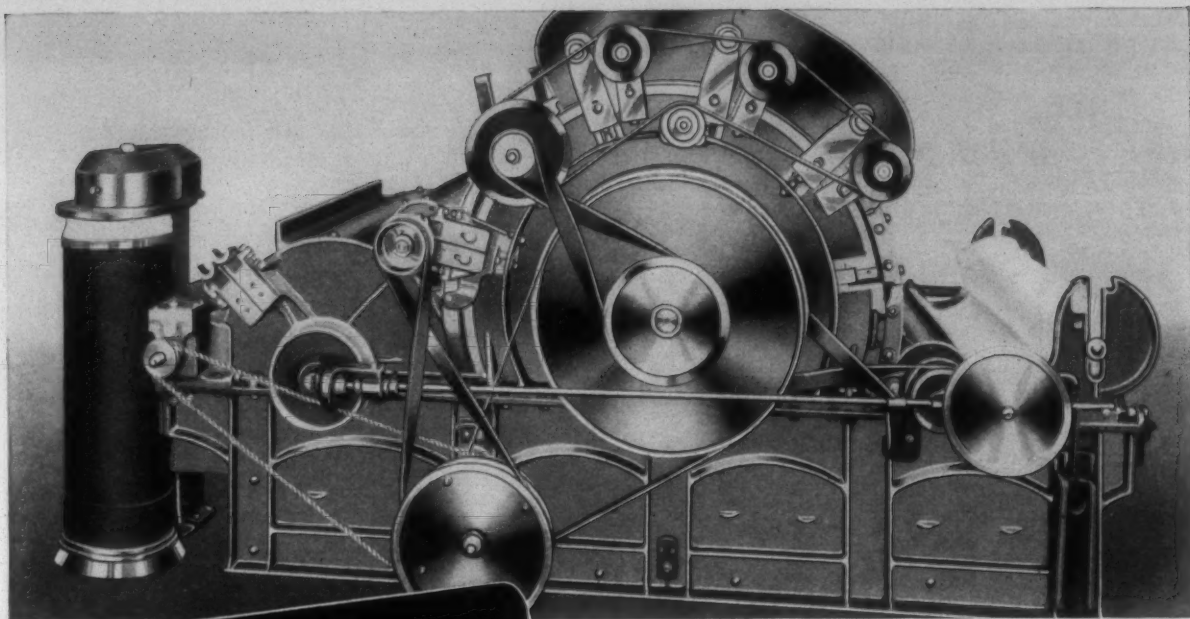
(At this time it was announced that the names of those speaking would not be published.)

Chairman Bowen: Are there any questions?

Mr. A.: In the beginning I wish to say that in any of these questions we ask (and I am sure we express the feeling of all the mill men) there is no attempt to chisel.

Mr. MacRae: That is right; I understand that.

Mr. A.: One of the biggest questions facing me and, I think, most mill men at this stage of the game is the question of learners. I know, and I think most of us do, that we are on the verge of a war. The question is whether our country can produce what will be needed. There has been a suggestion that in Washington there has been an interpretation that is a liberalization of the clause about learners. I should like to have that clarified, so that we shall not be chiseling and in no way violating the rule. Is there a change from what it was before? As it was before, if



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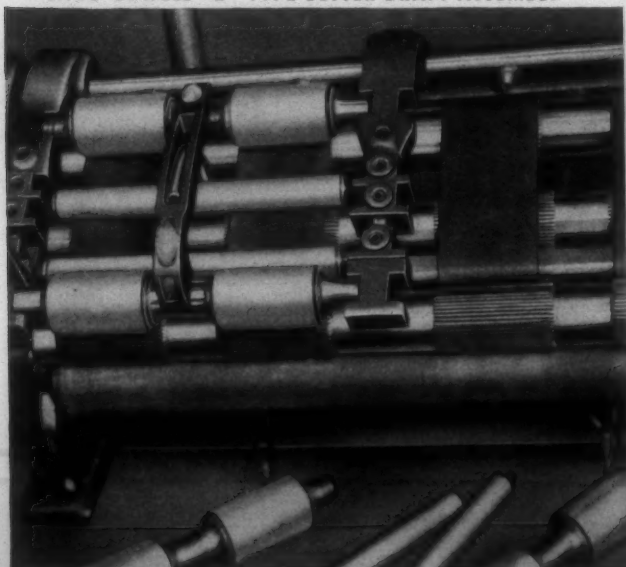
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any person came into the mill and stayed over his regular eight hours time it was necessary to pay him for that time.

Mr. MacRae: That is right.

Mr. A.: With this change, for instance, can a man come into the mill and learn? Say he is a weaver, after he works his regular eight hours can he come in and learn to fix looms?

Mr. MacRae: Yes. He can come in because he is advancing to a higher position. He can come in and learn voluntarily the loom-fixing business, provided that anything he manufactures does not go into commerce. In other words, he is going in there for instruction and not to work.

Mr. A.: Let me ask this. Suppose I have a man who is a drawing hand, who runs drawing in the mill, and is anxious to learn to run speeders, which is a step higher. To do so he has to help the man who is on the regular job of running the speeders. When he comes in to learn the mill does not derive any benefit from the production angle from him; the man that gets the benefit is the man on the job. If we let him come in and do that, do we violate the law?

Mr. MacRae: I would not want to commit myself on that without consideration. In the past, if a mill had a school for loom fixers and took some very bright weavers into a class and taught them for two hours at night, the mill had to pay them for that. In the future that man can go there voluntarily and learn that; but as to going into the plant itself and producing goods for commerce or producing goods from which the employer derives benefit from his learning, I do not think the Administrator would approve of it. In other words, he is going there for learning.

Mr. A.: This is my problem. We have fixing schools, but the problem we are up against is getting skilled labor. No industry can afford to pay those people regular time for learning. I can send 40 spinners to a school to learn, but I cannot get one out of that to run the job. An example I might cite is that of a typist who, by expansion of the plant, is offered an opportunity to learn to do stenographic work after her regular days' work. That is learning in order to advance. Another example is that of a sewing machine operator in a garment factory whose productivity comes up to that of the average employee in the factory. Suppose her employer tells her she is too slow and that she has to practice after hours on waste material in order to get up her speed. That would not be voluntary and would not be learning a different skill. What we want to know is whether an employee can come in and learn an additional job.

Mr. MacRae: I would say that was the intent. It was the intention to open the field so that employees could come in and study and advance to a higher grade. But this is not intended for the benefit of the employer. We say that you do not have to pay your employees for the time while they are learning, but we also say that you are not to derive any benefit from their work.

Mr. A.: If we teach a drawing hand to be a frame hand we do not derive any benefit from it, because there is a regular employee on the job who runs it just the same. It does not save us any cost at all.

Mr. MacRae: Does it increase your production?

Mr. A.: No, it does not, at all.

Mr. MacRae: That man already there would get out just as much without the fellow helping him?

Mr. A.: Yes, sir.

Mr. MacRae: In other words, the trainee does not do any production work?

Mr. A.: Yes, he is doing production work, but the other fellow could carry the job alone.

Mr. MacRae: The intention is that the employer shall not get any competitive advantage.

Mr. A.: He does not get any. The only benefit is that he will advance another employee. The employer pays for that; he pays the regular hand on the job.

Mr. MacRae: The man would be doing productive work?

Mr. A.: Yes, but production would not be increased. It would be decreased, probably.

Mr. B.: Mr. A., is it not true that wherever you have two men on the job, one trained and one untrained, you will get enough bad work from the untrained man so that you will get less production?

Mr. A.: That is true. Wherever you are trying to train men you lose money.

Mr. C.: You not only lose on that man but lose on the next.

Mr. A.: Yes, sir, that is true.

Mr. MacRae: We are now putting on some inspectors whose sole duty will be to investigate applications for exemptions. They will go right into every request for exemption and find out what it is all about, and it will be decided right here. It will not have to go to Washington, as has been necessary.

Mr. A.: You will not make a commitment right here?

Mr. MacRae: No, I can't say, because that employee is working on the production line. If he leaves his job after he has worked eight hours and goes up into another department and works in the production of goods there he is concerned in production.

Mr. D.: That kills the liberal interpretation of it, then.

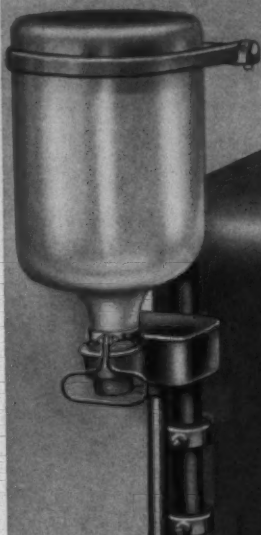
Mr. MacRae: No, sir, it does not. Before he could not go back into your plant even to read a chart or to read a book. Now he can do that, but he cannot go back and work on producing goods that go into interstate commerce. There are several points to be considered. Would that regular production employee stay there all the time? There is a possibility that after a few days the regular employee would say: "O. K., you run it now; I am going down to the basement to take a smoke."

Mr. D.: We would still be paying him.

Mr. MacRae: I think the thing to do is to have a sample room there where they can learn to run the machines. The man is giving his time without compensation, and I do not think the employer should derive any benefit.

Mr. E.: I want to say that you cannot put a man in

(Continued on Page 46)



**this attachment
PERMITS CONTROLLED PERCENTAGES
OF YARN CONDITIONING**



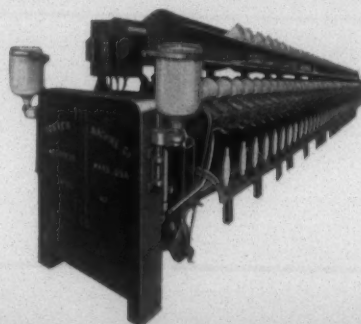
The Moisture regain is controlled in three ways:—by the direction in which the roll turns, i.e., with or against the yarn; by the speed of the roll; and by the level of the solution in the trough. This level is regulated by the height of the bottle reservoir.

This attachment is particularly useful in the preparation of yarns for Knitting, and in softening dyed and bleached yarns for all purposes.

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**FOSTER MODEL 102
YARN CONDITIONING
ATTACHMENT for Cotton,
Mercerized, Woolen, Worsted
and Merino Yarns**

New Sanforset Treatment For Viscose Rayon Fabrics*

By Wm. H. Harriss, M. E., T. E.

Cluett, Peabody & Co., Inc.

I FEEL SURE it can be assumed that you are familiar with the well-established Sanforizing Process, which has been on the market for many years. Therefore you know that the Sanforizing Process of mechanical shrinkage is primarily for cotton and linen fabrics, although some rayon fabrics are sanforized-shrunk, particularly in the spun yarn class; but here we have found that in most instances these spun rayon fabrics need to be stabilized in some manner before they can be sanforized-shrunk within our shrinkage tolerance. As you know, many rayon fabrics without some special finish are notoriously unstable. It is most difficult to predict what they will do during each wash; they may shrink, stretch, or do each in different dimensions, and then all these results may be reversed on a subsequent wash. Consequently, garments made from such fabrics easily lose their fit.

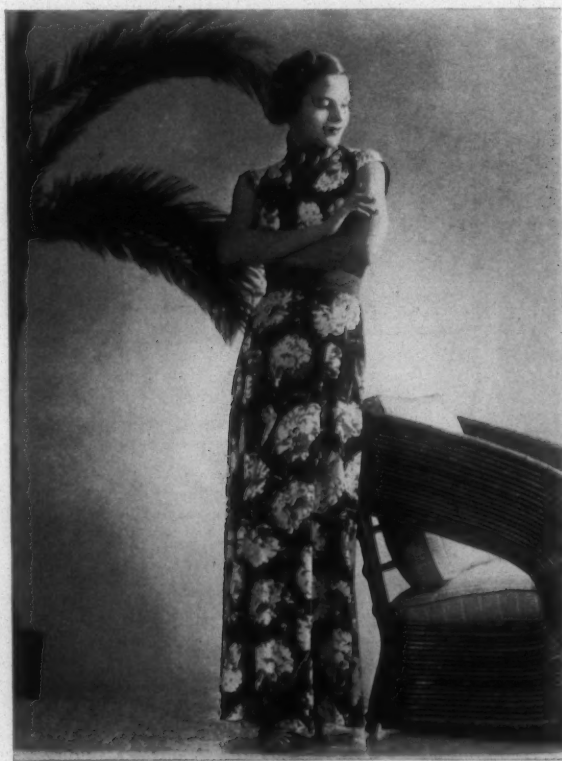
The usual method of stabilization is to impregnate the fabric with some of the many chemical resins before sanforizing. However, this requires two distinct processes, which, in conjunction with the usual shrinkage loss, makes the undertaking of bringing these fabrics to a proper stable and sanforized-shrunk condition, practical and serviceable for the consumer, a rather expensive one. For this reason we have realized for many years the need for some more direct and less expensive methods of finishing and presenting to the trade rayon fabrics that will not shrink nor stretch out of fit. So, much thought, research and effort have been given this problem for the past several years, resulting in our development and presentation of a unique chemical treatment known as "Sanforset." This treatment differs from the well-known sanforized-shrunk method, where, as you know, chemicals are not used, the shrinkage there being produced mechanically by compression in the presence of moisture and heat only.

This new Sanforset chemical treatment is applicable primarily to the viscose type of rayon fibers or to those generally known as regenerated cellulose. However, we have found that where the major portion of a fabric consists of such viscose type rayon fibers, we can then also apply the Sanforset treatment if it should carry a minor portion of other fiber blends, such as cotton, acetate, linen or wool, provided these latter mixes are not over 15 or 20 per cent.

This new method of chemically treating viscose fabrics

causes a form of reaction on the fibers, and after the reaction has taken place the chemicals are completely eliminated from the fibers and fabrics so that the stabilization is permanent and independent of superimposed substances, which may vanish in continual washings. The process therefore differs from impregnation methods where resins are cured in the fibers but afterwards may gradually lose their effectiveness as they often break down and disintegrate on subsequent washings, causing a reversion to the fabric's original unstable condition.

We do not claim to have the solution of all the difficulties encountered by the trade with viscose type of rayon fabrics, but we do say that we have removed the chief complaints of shrinkage and stretchage. To be labeled



"Sanforized-Shrunk Sanforset Treated and Tested Rayon," fabrics must not shrink nor stretch, within a strict tolerance, when tested by a wash and pressing test comparable to the treatment garments receive in a commercial laundry—a test more severe than most current standard wash tests for rayons.

It will be interesting for you to know that Sanforset treated fabrics do not develop any latent characteristics of feel, appearance or odor, and therefore after treatment

(Continued on Page 43)

*Presented at meeting of Massachusetts Laundryowners' Association, Boston, November 2, 1940.

What **LINK-BELT** POSITIVE DRIVES and **LINK-BELT** Power Transmission Equipment Mean to **YOU!**

YOU PROFIT by the convenience of dealing with one engineering organization dedicated to the correct engineering and applying of drives and power transmission equipment to suit specific needs.

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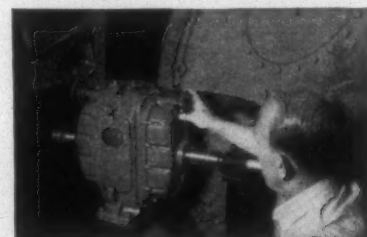
Binder No. 2100 contains eight complete catalogs bound as one book, covering the complete Link-Belt line of Positive Drives—Silent and Roller Chain Drives, Speed Reducers, P. I. V. Gear Variable Speed Transmissions. General Catalog No. 800 contains 1248 pages of engineering data, dimensions and list prices—the most complete data book and catalog ever published on elevating, conveying and power transmitting machinery.

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Silverstreak SILENT CHAIN DRIVE

The ideal drive for high speed power transmission. Records reaching back over thirty-five years testify to its outstanding performance. Trouble-free, low in first cost (frequently lower than belts), requiring practically no attention and little maintenance expense, always dependable, Link-Belt silent chain drive cuts production costs and increases machine efficiency.



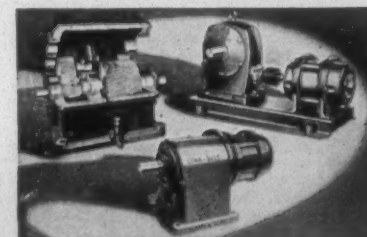
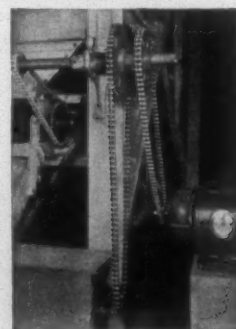
POSITIVE VARIABLE SPEED CONTROL

An all-metal, unusually compact unit, available for horizontal or vertical mountings in seven different models, hand or automatic control, the P.I.V. Gear offers you an opportunity for achieving simple, accurate, quick (within a fraction of a revolution) speed control. The range of sizes now extends from $\frac{1}{2}$ to 15 H.P.

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Engineers recognize the value of Silverlink's accurately finished, all-steel construction, built to the highest standards of precision... that it combines great strength with comparatively light weight... that it is extremely flexible, assures smooth operation, and is especially capable of withstanding severe shocks... that it minimizes wear and repair.



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The three improved types of reducer units included in the Link-Belt line—Herringbone, Worm, and Motorized—meet today's needs for the dependable transmission of power at accurate speeds. They are built in a large variety of sizes, ratios and horsepower. Call in a Link-Belt positive drive specialist to help you select the most efficient unit for your requirements.

N. C. Cotton Manufacturers Have Fine Convention

AT one of the best attended and most successful conventions in the history of the North Carolina Cotton Manufacturers' Association, held at Pinehurst November 7th, 8th and 9th, William H. Entwistle, vice-president and general manager of the Entwistle Mfg. Co., Rockingham, N. C., was elected president for 1940-41. Other officers were elected as follows: First vice-president, W. H. Ruffin; secretary and assistant treasurer, The Erwin Cotton Mills Co., Durham; second vice-president, Ellison A. Smyth, 3d, president, Balfour Mills, Hendersonville; secretary and treasurer, Hunter Marshall, of Charlotte.

Directors for the term expiring in 1943 are: Don S. Holt, Travora Mfg. Co., Graham; Herne Swink, Cannon Mills Co., Kannapolis; Holmes Davis, Jr., Spofford Mills, Inc., Wilmington; R. D. Hall, Stowe Thread Co., Belmont; Robert Cole, Hannah Pickett Mills, Rockingham; Carl Rudisill, Carlton Yarn Mills, Inc., Cherryville.

Dr. Julian Miller Speaks

Dr. Julian S. Miller, editor of the *Charlotte Observer*, was one of the main speakers, and he urged unity of purpose in the tremendous task of arming and preparing the country. He said:

"Let's therefore have done with these noises that we have been hearing in our political engagements. They are French noises, noises that deafened the ears of the people of France while the thunderbolts of destruction were being forged against them across the river. They are the noises of dissension and discord and disaffection as Leftists and Rightists and capitalists and Communists filled the air of the French Republic with their bitter acrimony and sharp contentions.

They are the noises that defeated France before the tread of the heel of the invader ever touched its soil. Germany did not defeat France. France committed suicide. And they are the same noises that can frustrate and paralyze the gigantic resources of the American continent at a critical moment like this when all that we are and all that we have must be brought unhesitatingly to the altar of sacrifice and devotedly released to the supreme call of national duty."

This address followed the annual address of the president, A. G. Myers, which will be found on page 11.

Excellent Safety Record

T. A. Wilson, chairman of the State Industrial Commission, announced to the members that the most successful State-wide Textile Safety Contest was completed in August.

Thirty-six of the 262 plants entering the fifth annual

contest, which covered the period from January to August, operated 7,65,094 man-hours of work without a single lost-time accident.

He announced that the trophy winners by plant groups were: Group 1, Erwin Cotton Mills Co. Mill No. 6 at Durham, employing less than 200 persons, which had 207,305 man-hours without a lost-time accident; Group 2, Greensboro Weaving Co., Greensboro, which employed between 201 and 400 persons and worked 343,104 man-hours without a lost-time accident; Group 3, Longhurst plant of the Roxboro Cotton Mills, at Roxboro, which had between 401 and 750 employees, and which reported 672,960 man-hours without lost-time.

In Group 4 the trophy went to Mooresville Cotton Mills No. 4, at Mooresville, which operated 1,454,400 man-hours with only one lost-time accident, or a frequency of 0.61 accidents per million man-hours. This group included plants with more than 751 employees.

Wilson told the textile manufacturers that the number of lost-time accidents had decreased steadily since 1936, as shown by the five annual safety contests.

He pointed out that insurance rates for compensation coverage for cotton spinning and weaving had been reduced by 16 2/3 per cent since 1936, and attributed this directly to the safety work and accident reduction.

Reports of Committees

R. D. Hall reported from the Committee on Taxation. He related his recent experience as an official visitor to a veterans' hospital and assured the convention that when he had finished his visit he was a better taxpayer than he had ever been before. For the more specialized features of his committee's work he introduced Richard E. Thigpen, of Charlotte, tax counsel to the Association. Mr. Thigpen described in considerable detail the methods of computing various taxes.

D. A. Long, Jr., of Thomasville, reported from the Committee on Membership, and Carl Cunningham, the Atlanta traffic expert, read the report of F. J. Haywood, chairman of the Traffic Committee, who was unable to be present. William Cannon, in the absence of his father, C. A. Cannon, of Kannapolis, read the report from the Cotton Committee.

Much interest was shown in the report from the Safety Committee, of which Marion W. Heiss, of Greensboro, is chairman. Mr. Heiss' report had been mimeographed and distributed to the entire convention.

Herman Cone reported from the Legislative Committee, of which he is chairman, that since there had been no sitting of the Legislature this year, the committee had been

(Continued on Page 44)

**NEW
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PRODUCTS**

**XYNOTEX
SOFTENER**

A new type of anionic softener rivaling the softening effectiveness of the cationic softening agent. Does not affect colors or white and can be used with all types of fibers.

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A recent addition to the Phi-O-Sol family. It is an improved sulfated oil ester possessing potent wetting, dye-leveling and penetrating properties.

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New wetting and penetrating agents, stable and effective under all pH conditions. Particularly recommended for use in pressure dyeing machines.

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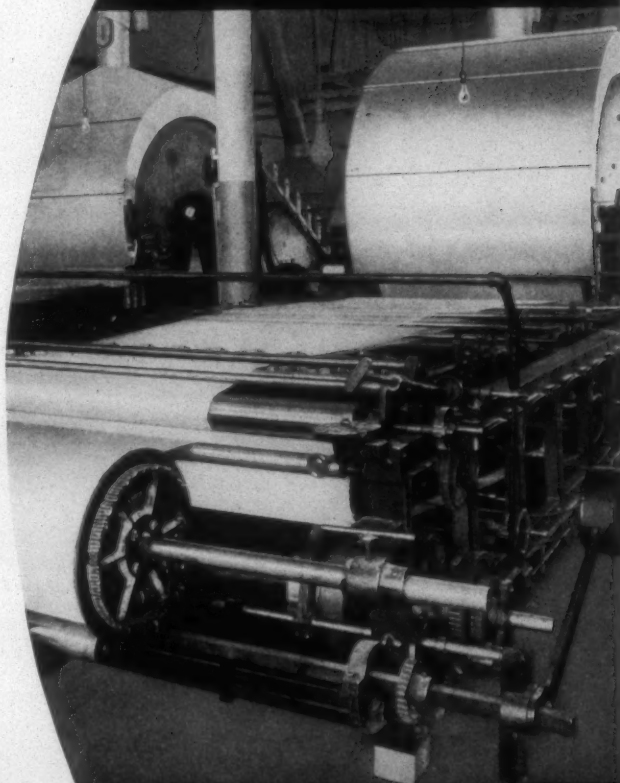
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Warp Sizing Starches



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Atlanta, Ga.
Birmingham, Ala.
Boston, Mass.



Personal News

B. C. Huneycutt is now night superintendent of the Sanford (N. C.) Cotton Mills.

H. C. Yates is now master mechanic of the Dallas (Tex.) Cotton Mills.

Lee Sens is now superintendent of the Glen Raven Cotton Mills No. 2, Kinston, N. C.

Earl Stewart, formerly of Jefferson, Ga., is now office manager at the Sanford (N. C.) Cotton Mills.

G. Arthur Cook, superintendent of the Boylston Mfg. Co., Montgomery, Ala., is the newly-elected vice-president of the Alabama State Chamber of Commerce.

W. A. Morehead, agent of the Joanna Textile Mills, Goldville, S. C., has been elected president of the Kiwanis Club at Clinton, S. C.

K. M. Yow has been promoted to night overseer of weaving and slashing at the Sanford (N. C.) Cotton Mills.

Bascom B. Blackwelder, president of the A. A. Shuford Mill Co., Hickory, N. C., has been elected president of the Hickory Chamber of Commerce.

H. W. Winnett, formerly with Avondale Mills at Sylacauga, Ala., is now master mechanic at the Sanford (N. C.) Cotton Mills.

P. J. Guinn, and *not* P. J. Quinn, as reported in a recent issue, is now overseer of weaving at the Flint River Cotton Mills, Albany, Ga.

J. G. Chapman, formerly manager of the Samoset Cotton Mills, Talladega, Ala., is now production superintendent at the Eagle and Phenix Mills, Columbus, Ga.

Andrew Potts has been named overseer of the cloth room at the Dallas (Tex.) Cotton Mills. Mr. Potts was formerly with the Corsicana (Tex.) Cotton Mills.

R. D. Gazaway is now overseer of first shift weaving and slashing at the Sanford (N. C.) Cotton Mills. He was formerly with Drayton Mills, Spartanburg, S. C.

Max Higgins has resigned as overseer of spinning at Pilot Mills, Raleigh, N. C., to take a position with the Harriett Cotton Mills, Henderson, N. C.

L. Tipton, formerly at the Jefferson Mills No. 1, Jefferson, Ga., is now overseer of carding and spinning at the Sanford (N. C.) Cotton Mills.

A. E. Dyson has been promoted from cloth room overseer to superintendent of the Dallas (Tex.) Cotton Mills. He was formerly with the Sanford (N. C.) Mills.

W. L. Stoner, formerly of the Graniteville Co., Warrenville, S. C., is now overseer of spinning at Pilot Mills, Raleigh, N. C.

W. M. Langley, formerly superintendent of the Abbeville Mills, Abbeville, S. C., is now superintendent of the Warren Mill of the Graniteville Co., Warrenville, S. C.

Marvin Hewitt has been promoted from second hand to overseer of carding at the Graniteville Co. (Warren Plant), Warrenville, S. C.

Capt. Elliott Springs, president of the Springs Cotton Mills, Fort Mill, S. C., recently flew his plane from Fort Mill to Wichita, Kan., in six hours, averaging nearly 200 miles per hour.

S. L. Lewis, Jr., formerly with the selling agency of H. E. Bishop, has accepted a position with the sales organization of Eagle & Phenix Mills, of Columbus, Ga. He will take up his duties in New York on Dec. 2nd.

E. C. Gwaltney, who has charge of the Research Department of the Bibb Mfg. Co., and who divides his time between that company and the Saco-Lowell Shops at Biddeford, Me., has returned to his home in Georgia after spending the summer months in Maine.

J. C. Pirkle, formerly superintendent of the Faytex Mills, Fayetteville, N. C., is now superintendent of the No. 2 Mill of Pee Dee Mfg. Co., Rockingham, N. C. Wm. P. Cargill is general superintendent.

C. E. Elrod, formerly with the Dallas Cotton Mills, and more recently with the Texas Textile Mills at Dallas, has returned to his former position as weave room overseer at the Dallas Cotton Mills, Dallas, Tex.

Injured in Automobile Collision

R. I. Dalton, Jr., son of R. I. Dalton, of the Whitin Machine Works, and C. C. Dawson, Jr., son of C. C. Dawson, vice-president of the Cramerton Mills, both students at N. C. State College, were injured while returning from the Duke University-North Carolina football game on No. 16th. Their car ran into a car which was turning left into a side road. They were released from the State College Infirmary after spending one night there.

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Prompt Shipment All Grades on Short Notice

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EMULSIONS AND SOFTENERS FOR KNITTING YARNS

- ★ Better Quality
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LET US tell you about Laurel Emulsions and Softeners and how their application gives your yarns better knitting qualities . . . better softening, lubricating, conditioning, twist setting of processed or grey, carded or combed knitting yarns. Backed by over 15 years' experience in the treatment of cotton yarns for leading processors and spinners.

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ASHWORTH
PIONEERS IN
CARD CLOTHING

AN INVENTION WHICH HAS

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**THOUSANDS OF HOURS
IN CARD STRIPPING TIME**

Since the grinding of card clothing points, on the sides, lengthens the time between stripping periods, the value of this operation is generally recognized. However, do you know that Ashworth invented and uses a special type of side grinding machine which definitely assures the tapering of EVERY point, on BOTH sides, whereas other types of side grinders leave much to chance? This Ashworth invention has saved the textile industry thousands of hours in stripping time.

Many other ways in which this company has pioneered, and is pioneering, to reduce carding costs and improve carding performance will be explained on request.

ASHWORTH BROS., INC.
Woolen Div., AMERICAN CARD CLOTHING CO.

3 FACTORIES

Fall River, Worcester, Philadelphia

6 REPAIR SHOPS

Fall River, Philadelphia, Charlotte, Greenville, Atlanta, Dallas

7 DISTRIBUTING POINTS

Fall River, Worcester, Philadelphia, Charlotte, Greenville, Atlanta, Dallas

Southwestern Representative: Textile Supply Co., Dallas, Texas

★ PRODUCTS AND SERVICES: Card Clothing for Cotton, Wool, Worsted, Silk and Asbestos Cards and for All Types of Napping Machinery • Brusher Clothing and Card Clothing for Special Purposes • Lickerin Wire and Garnet Wire • Sole Distributors for Platt's Metallic Wire • Lickerin and Top Flats Re-clothed

Howard Bros. Lets Contract for New Plant

Gastonia, N. C.—A modern \$20,000 plant will be erected here by the local branch of Howard Bros. Mfg. Co., manufacturers of card clothing, it was announced by Carl M. Moore, local manager.

The new plant will be on Linwood Street in West Gastonia. Contract for the construction work, which will begin at once, has been awarded to R. H. Pinnix, local contractor.

The building will be a one-story brick, concrete and steel structure, 50 feet wide and extending the full depth of the lot, 174 feet.

Westinghouse Reports "Biggest Month" in History

Expanding peacetime and preparedness activity is reflected in the announcement that August, 1940, was the "biggest month in the history" of the Westinghouse Electric & Mfg. Co.

George H. Bucher, president of Westinghouse, reported that his company's orders for the month amounted to \$57,352,054 and that employment was approaching the peak months of 1929 and 1937. August's business showed a 68.8 per cent increase over July, and business for the first eight months in 1940 a 67.1 per cent increase over the same period in 1939. The company's previous record month was October, 1917, when orders amounted to \$50,-

000,000. "However," Mr. Bucher pointed out, "a large part of our last month's business was taken at a very moderate profit, since some \$36,000,000 of it represents emergency orders for the Government's preparedness program."

American Cyanamid To Expand

Charlotte, N. C.—Plans for extensive expansion at the local plant of the American Cyanamid & Chemical Corp. were announced here by A. J. Campbell, general sales manager, and Hugh Puckett, Southern sales manager.

The company recently purchased 16 acres of land adjacent to its present plant on Wilkinson Boulevard. It will build a two-story addition to the plant and a two-story air-conditioned office building to be used as headquarters for its Charlotte office and for its Calco Chemical Co. division. The company will also build a 10-truck garage. Officials hope to have the building program completed by the middle of February.

Chemicals for use in the textile industry are made in the Charlotte plant. Added facilities will be arranged in the building for the Calco division's work of handling colors, dyes, and other business connected with this phase of the concern.

Mr. Campbell came here especially to attend the sales convention conducted at the Charlotte Hotel by Mr. Puckett. All the Southern salesmen were called in for all-day sessions which ended with a dinner at the hotel.

The Fleet Line

PROGRESSIVE JIG

FOR OPEN WIDTH PROCESSING

Cheaper and More Efficient than

Dye Jigs

THIS machine is used for boiling off, bleaching or dyeing heavy cotton fabrics which would become permanently creased if roped up in a kier.

It liberates dye jigs for other purposes and involves a smaller investment than a group of jigs with the same capacity. It also conserves chemicals, since it squeezes excess liquor back into the bath.

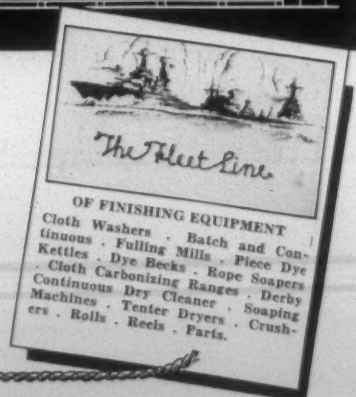
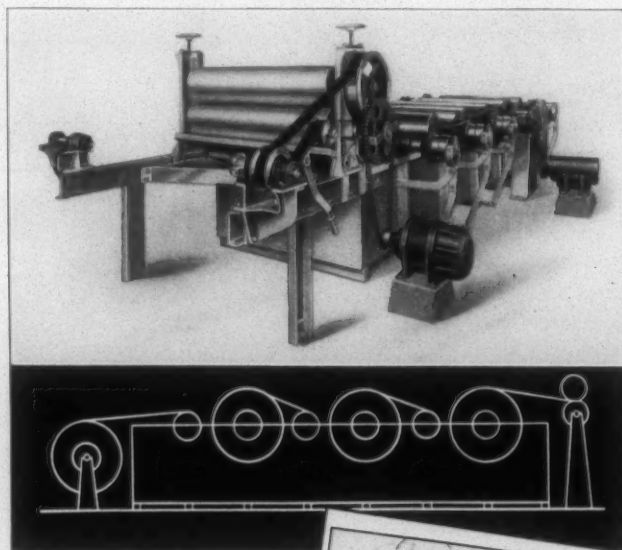
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Textile Trust Trial Set for November 28th

Greenville, S. C.—Federal Judge Alva H. Lumpkin, of Columbia, set the trial twice postponed of five S. C. textile leaders charged with violation of the Sherman Anti-Trust Act for Thursday, November 28th, in Greenville. The case was originally set for trial during the October term of Western District Court here, but was postponed when Judge C. C. Wyche declared himself disqualified. Defendants in the case are J. E. Sirrine, Fred W. Symmes, Ellison S. McKissick, John B. Harris, and David W. Anderson.

OBITUARY

Z. M. MANGUM

Birmingham, Ala.—Z. M. Mangum, 63, retired general superintendent of all of the Avondale Mills, died in Auburndale, Fla., on October 22nd.

During his active career Mr. Mangum was one of the leading technical mill men in the South.

He started at McAdenville (N. C.) Mills as quill hauler, later went to the Fort Mill (S. C.) Mfg. Co., Proximity Mfg. Co., Greensboro, N. C., then to superintendent of the Minneola Mfg. Co. at Gibsonville, N. C. In 1913 Mr. Mangum went to Birmingham as superintendent of the Avondale Mill there and was promoted to general superintendent of all the Avondale Mills in 1929. He had been retired for the past several years.



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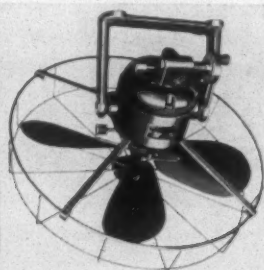
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Contributions on subjects pertaining to cotton, its manufacture and distribution, are requested. Contributed articles do not necessarily reflect the opinion of the publishers. Items pertaining to new mills, extensions, etc., are solicited.

National Unity Imperative

The voters of the United States have selected Franklin D. Roosevelt as Chief Executive for the next four years, and while we were not in accord with the majority, we do not believe that this is any time to do other than accept the result, in good spirit, and to seek national unity.

The United States faces a grave peril, today, as the dictators of Europe wage war, and nothing must interfere with the progress of our defense program.

As citizens of this country we had, and were entitled to have, and to express, our opinions, but the voters have registered their verdict and the arguments and the charges made during recent months must be forgotten as we turn our faces to the danger from abroad and forge the armor which will protect us in case of assault.

We may still hold to our opinions relative to the ultimate results of policies with which we do not agree, but the voters have selected those who are to lead during the troublesome period ahead and as loyal Americans we must step into the ranks and stand shoulder to shoulder with those who hold political opinions, upon domestic problems, which differ with ours.

National unity must exist, if we are to be prepared to withstand aggression and to render assistance to our friends, and no man should allow his prejudice against the successful candidate to

cause him to stand apart, in this hour of danger.

When the danger has passed and when the skies have cleared, we may fight new battles over domestic policies, but today we are Americans and we stand with the Administration in its preparation for the defense of this land.

Good-Bye Madden

Those who believe in fairness and justice will shed no tears of regret over the fact that J. Warren Madden is to be succeeded by Dr. Harry A. Millis, of Chicago, as member of the National Labor Relations Board.

J. Warren Madden so conducted himself as to be worthy of the contempt of a multitude of our citizens who still believe that public officials should deal fairly with citizens in all walks of life.

Mr. Madden is to be given a position upon the U. S. Court of Claims, but it would have been more appropriate if he had been given a life pension by the CIO.

The real master of the National Labor Relations Board, David J. Saposs, has been dropped because Congress refused to further provide a salary for him, and the news, that J. Warren Madden was to go, was the signal for resignations of numerous employees who knew that as soon as the Board was placed upon a fair and honorable basis, there would be no place for them.

They reminded us of rats scurrying from a ship on fire, which in this case was to be a cleansing fire.

"Guest Editors"

Beginning next month, the TEXTILE BULLETIN will carry a series of editorials, contributed, at our request, by prominent Southern mill executives. The first, which will be written by B. B. Gossett, head of the Gossett Mills, and Chadwick-Hoskins Co., and past president of the American Cotton Manufacturers' Association, will appear in the December 1st issue.

Selection of subjects will be left to the writers and opinions expressed will also be entirely their own. We may not agree with some of the opinions, but believe that our readers will be interested in having the viewpoints of prominent manufacturers on matters affecting the industry, and are confident that every one of the "guest editorials" will be closely read.

This new feature will appear at least once per month, on the page immediately ahead of the title page.

To Pay for Lawlessness

We note the following item in a Charlotte paper:

The four men awaiting transfer to a prison camp were C. W. Danenburg, a CIO organizer, George Steelman and Robert Miller, CIO strikers, and Cecil Godfrey, an ex-convict who testified he was hired to fire at a Nebel truck by Steelman and Miller. He also implicated Danenburg. The four pleaded guilty to maliciously damaging property valued at more than \$50 and were sentenced yesterday afternoon by Judge A. Hall Johnston in Superior Criminal Court. Godfrey was sentenced for a year, the others for nine months each.

County Jailer John Boyd Pharr said the four will probably be sent to a State Prison Camp near Siler City.

The above refers to a union organizer and three strikers who, in order to escape trial and punishment for more serious offenses, pleaded guilty to malicious damage to property and accepted prison camp sentences. Godfrey, an ex-convict who was hired by the CIO to commit lawless acts, including firing upon a Nebel Hosiery Mill truck, made a complete confession while in jail and gave details showing how the CIO leaders planned damage to property and injury to those employees who refused to strike.

During the nine months to one year which these men will spend wearing stripes and working upon North Carolina roads, they will have time to reflect that North Carolina is not Pennsylvania and the Nebel Hosiery Mills are not the Apex Hosiery Mills.

Even that contemptible organization known as the National Labor Relations Board cannot prevent North Carolina from punishing those who engage in lawless practices.

The four men, mentioned above, are not the only ones who are to serve jail sentences for acts connected with the Nebel Hosiery Mill strike, for many strikers who have been convicted in the Magistrate's Court have appealed their case and are awaiting trial in the Superior Court.

After all the disorders incident to the strike, it has been called off without the union winning a single point other than that the mill would re-employ those who had not participated in serious disorders.

A Wage-Hour Law Oddity

At a recent meeting of the Piedmont Division of the Southern Textile Association, at which Stephen MacRae, who is in charge of the Wage-Hour Office in Columbia, S. C., was the principal speaker, the following question was raised by a member of the audience:

"In the event that a mill is having contract work done, such as overhauling, or building of

any nature about the mill, where the work is let out on a strictly contract basis, is the mill in any way responsible for any possible violation of the Wage and Hour Law by the contractor?"

The reply by Mr. MacRae was that the mill was jointly responsible with the contractor for any violation of the law, and would be held equally liable.

Such a situation has not been tested so far as we know, but it might be well, in a period of activity such as the textile industry is now going through, for the mills to be sure that they are not unwittingly made joint violators of the law through the action of a contractor.

Travel in Canada

Americans are accustomed to travel abroad and, every year until recently, our tourists have spent millions in Europe.

One way in which we can now assist Great Britain is to spend at least a portion of those millions in Canada.

The section around Quebec and the Canadian Rockies offer tourists both interest and beauty. No passports are required and in Canada our money commands a 10 per cent premium.

Canada is furnishing England many planes and other implements of war and needs American dollars in order to purchase materials from the United States.

The United States tourist to Canada will get his dollar's worth, plus the assurance that his expenditures will do double duty by building up the Dominion's defense program.

New Textiles

Dr. Gustavus Esselson, of Boston, addressing the American Chemical Society, said:

Wool from sheep's clothing, silk from the digestive systems of worms, cotton from the parachutes of seeds and linen from the stems of plants no longer limit the abilities of the textile industry to supply fabrics.

Synthesis and a variety of chemical treatments of natural fibers provide an increasing number of valuable raw materials for the weaver and knitter of garments.

Electricity produces new pile fabrics for dresses and upholstery. Glass has become a textile fiber of promise since its brittleness has been nullified by its conversion to infinitesimally fine fibers.

Milk and soybeans supply new protein fibers. Chemical manufacture converts plentiful raw materials into new fibers of amazing usefulness and beauty. Synthetic resins function as permanent finishes which add to the value of common goods and fibers.

These new developments create both opportunities and hazards for the textile manufacturer—opportunities for those awake to the possibilities they offer of meeting human needs more fully; hazards for the ultra-conservatives who let progress pass them.

Mill News

REMERTON, GA.—The Strickland Cotton Mills have installed one 44-inch Hermas shearing machine.

MONROE, GA.—Walton Cotton Mills is to build a one-story addition, cost about \$25,000, for a warehouse unit.

PELZER, S. C.—The Kendall Mills' new one-story addition and machinery will cost about \$45,000.

GRANITE FALLS, N. C.—Falls Mfg. Co. have completed an addition at Plant No. 2 and machinery changes are almost completed, including installation of the Jackson Mfg. Co.'s atomizer humidifying system by G. A. White & Co., of Charlotte, N. C.

ENKA, N. C.—Work is going forward on construction of a mile-long, U-shaped dike, 10 feet high and 20 feet thick, around the American Enka Corp. as a precaution against floods.

In addition, the course of two streams, from which the rayon company secures water, will also be changed.

RED RIVER, S. C.—The building which formerly housed the Red River Cotton Mill, which has been out of business for many years, has been purchased at a trustee sale by W. C. McDow, attorney for Wm. S. Wilson, as trustee, for \$15,000.

MACON, GA.—William D. Anderson, president of the Bibb Mfg. Co., confirms reports that this organization has gone into the production of wide sheeting, having installed a complement of wide looms of the latest model.

"We went into this business to serve the bedspread trade, largely because we were pioneers in serving this particular industry with the yarns they use," states Colonel Anderson. "It is not our present intention to go extensively into the manufacture of sheeting for the ordinary bed sheets."

ELKIN, N. C.—A storage building of around 200,000 square feet of floor space will be erected by the Chatham Mfg. Co., of this city, it was announced by Thurmond Chatham, head of the firm. The storage warehouse will be built as soon as the old factory in Winston-Salem, now used for storage, can be disposed of, a mill executive stated.

At the same time, it was announced that work is proceeding rapidly on a building in Elkin destroyed by floods

and fire last summer. Until this latter structure is completed, Mr. Chatham said, the firm is compelled to send the wool North to be washed for processing.

MCADENVILLE, N. C.—Stowe Mills, Inc., are installing Jackson Moistening Co.'s atomizer humidifying system in another of their departments, this being the second installation. Work is being done by G. A. White & Co., of Charlotte, N. C.

WESTMINSTER, S. C.—New 70-inch looms are being installed in a new addition which has been constructed at the Oconee Mills, Inc., local plant of the Beacon Mfg. Co., of Swannanoa, N. C. Cotton blankets will be manufactured on these looms. The new addition measures 15,000 square feet. In the past the local plant has been a spinning mill only.

HAWKINSVILLE, GA.—The Fall River (Mass.) Plant of Hawkinsville Cotton Mills has been consolidated with their plant here. This will require the removal from Fall River of the Bleachery and some additional equipment. Machinery already installed includes 10 sewing machines and 34 looms, making a total of 104 looms. In the future this mill will be known as Superba Mills, Inc., with Fred R. Thomas as president and treasurer. They will continue the manufacture of cotton toweling and towels.

FAYETTEVILLE, N. C.—Sale of the Faytex Cotton Mills of Fayetteville, which went into bankruptcy in 1939, is announced here by E. C. Geddie, of Erwin, trustee. The mills were sold to W. R. McElroy, of New York City, for \$100,000, Geddie said. McElroy for the past year has been serving as co-trustee of the company. Terms of the sales were not announced, but Geddie said McElroy plans to put the cotton mills back into operation within 90 days. The mills employ nearly 500 people when in full operation.

BOWLING GREEN, KY.—The Derby Underwear Co. will install more than \$100,000 worth of new machinery in a building which is being constructed here for that purpose by the Bowling Green Industrial Foundation. The new building was scheduled to be completed and ready for the installation of the machinery by November 10th, it is stated. The new building will measure 100 feet by 280 feet. It will be two stories of fireproof construction.

LURAY, VA.—The entire front wall of the new building being erected for the Luray Textile Co., about 150 by 25 feet, caved in November 11th, causing damage estimated at \$2,000. A heavy southeast gale was assigned as the cause.

The new brick \$75,000 building was awaiting steel for the roof, which, it was said, had been held up because of war orders. The construction is protected by insurance.

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DYEING AND FINISHING

The Preparation and Dyeing of Naphthols on Package Machines

By Carl Bartell + + +

THE first naphthols were offered to the dyeing industry approximately 20 years ago or more, but only within the past ten years has the use of naphthols in package dyeing of yarns become widespread.

Naphthol AS was the first of the naphthols introduced and this product, unless dried before coupling or developing with the diazotized fast color base or salt will wash off noticeably thus causing a weakened shade.

Naphthols of the AS type are known as the non-substantive group which includes the older naphthols that are generally used for piece goods and printing.

After years of research, the substantive types of naphthols were introduced to the dyeing industry and these were so named because they possess a definite substantive action or affinity for cellulosic fibers. In addition, this group can be coupled to the diazotized fast color base solutions while the naphtholated yarns and material are wet and give excellent color yield as compared against the non-substantive group if coupled wet.

The first substantive type was Naphthol AS SW, followed by Naphthol AS BR, AS-BG, AS-LB, AS-SR, AS-LG and others.

Naphthols AS-SW and AS-BR remain the two widest used due to their good money value and fastness properties that they possess.

With the introduction of Naphthol AS-SW, the pressure package dyeing machines were becoming perfected and dyers were trying to dye all types of colors as these package machines with varying degrees of success.

For several years, a yarn dyer running naphthols on package machines encountered these chief troubles in the naphtholating and coupling or developing baths:

Naphtholating Bath

- A-1—Poor solubility of substantive naphthols in preparation for naphtholation bath.
- A-2—Poor stability of naphtholate bath during the impregnation of tightly wound packages of yarn.
- A-3—The vary substantivity of the naphtholated yarn when given a cold salt wash.
- A-4—The necessity of hydro-extraction the naphtholated packages of yarn before coupling in preference to giving a cold salt wash.

Coupling Bath

- B-1—Poor solubility of the fast color bases and the difficulty entered in dissolving and diazotizing them.

B-2—The necessity for straining the diazotized base solutions several times before being entered into the coupling bath on package machines.

B-3—The lack of technical knowledge among dyers and dyestuff demonstrators as to a good working knowledge of how to handle the preparation and diazotization of base solutions. They would try to "talk" their dyeing of dye-stuffs through a

shade instead of making it work from a technical and practical viewpoint.

B-4—Failure to stabilize the coupling bath so that the diazotized base solution would precipitate out heavily on the inside and outside of packages, thus making the dye lot a total loss.

B-5—Maintaining a sufficiently low temperature of 50-80° F. for the coupling or developing bath operations.



Package Dyeing in Southern Plant

B-6—Lack of knowledge and information on the finishing off of dye lots so as to reduce the crocking to a minimum.

Additional sources of trouble found in the dyeing of naphthols were the type of dyeing machines and the preparation of the packages of yarns. These were:

- 1—Lack of uniformity of pressure exerted on all packages on a spindle in machine.
- 2—Steam valves and reversing valves for flow of liquor were not of good quality.
- 3—Lack of uniformity in winding packages, giving soft and hard packages.

This required training of yarn winding operations.

During the past ten years, the introduction of prepared fast color salts has increased the use of naphthols plus the greatly improved naphthols and bases now being offered the dyers.

With these improved naphthols, bases, and salts plus the better engineered dyeing machines for ackage dyeing, a dyer now finds himself with the following points in the naphtholating (impregnation) and coupling (developing) operations greatly improved:

Naphtholating

- C-1—Naphthols AS-SW and AS-BR can now be prepared at low temperatures with small amounts of alcohol and caustic soda. This is due to the excellent dispersibility and solubility now found in these products.
- C-2—A properly dissolved naphtholate solution requires a sufficiently alkaline "spring bath" to remain stable during the naphtholating bath.
- C-3—Satisfactorily naphtholated yarn can be salt washed cold and will give uniform dyed shades from lot to lot.
- C-4—The removal of packages from a machine for hydro extraction of salt washing is only practiced by a few dyers nowadays. The prepared 25% brine solutions now used in salt wash are better than adding dry salt to machines in salt wash.

Some of the latest type of dyeing machines have air extraction units for blowing out excess moisture and these are being used successfully in place of salt washes.

Coupling

- D-1—Stabilized fast color salts possess excellent solubility and give good color value. Fast color bases possess improved solubility and dyers can now obtain practical and foolproof preparation and diazotizing methods that give full details for handling bases if a dyer wishes to keep color costs at a minimum.
- D-2—Nowadays, a fast color salt solution or a properly diazotized base solution seldom requires more than a straining through cloth once. On some of the newer bases and salts the straining is not necessary.
- D-3—Dyers and dyestuff demonstrators are better

trained and possess fair to excellent ability on handling naphthols now.

D-4—Coupling baths are stabilized and seldom precipitate out of solution.

D-5—Dyestuff and chemical companies have greatly improved the materials and methods used for finishing off dyed naphthol lots.

The improvements now being shown in the dyeing of naphthols can be shown by this simplified dyeing procedure now offered for several of the popular naphthol shades being dyed on package machines.

Naphthol Orange

Preparation of packages: Boil out—30 minutes:

1-2% Penetrant

2% Soda Ash or 1% caustic soda

Run 30 minutes at 200° F., drop, running cold wash, bring up fresh bath at 110° F.

Spring bath—110° F., run 10 minutes—valve reverse (5-15 minutes).

2.5% Caustic soda

0.5% Sulfonated fatty alcohol.

Naphtholate bath—110° F.

2.0% Naphthol AS SW

Paste with alcohol, add 0.6% caustic soda, stir and add lukewarm water for solution.

Add to expansion tank in 2 parts. Run 30 minutes, add 10% salt, run 30 minutes. Drop and give salt wash cold. Drop and bring up fresh bath for coupling bath.

If yarn extracted, add 1% Formaydehyde to naphtholating bath.

Coupling bath—start at 60° F. and hold below 80° F.

2.25% Fast Orange GC Base

Paste with hot water. Add slowly.

3.50% Muriatic acid (32-36%). Stir thoroughly, allow to stand 10 minutes. Add cold water and ice, cool to 40° F., add slowly and stir 5 minutes.

1.40% Sodium Nitrite (water solution). Diazotized 25 minutes. Test with potassium iodide paper to see if sufficient nitrous acid condition is available. Neutralize with:

1.80% Sodium acetate—water solution. Test with congo red paper, no color change should take place, if so add additional sodium acetate solution.

Add:

0.75-56% Acetic acid (diluted) to expansion tank with ice and 10% salt (brine). Strain in the diazotized base solution and run 45 minutes. Drop bath, wash cold and soap off at 200° F. for 20 minutes with:

2.00% Sulfonated fatty alcohol

1.00% Pyro phosphate

Drop and give 2 hot washes at 180° F. and 140° F.

Drop and give cold wash and out.

Using this similar procedure, this formula will give good results:

Naphthol Wine

Boil out:

- 2.0% Penetrant
- 1.0% Soda Ash

Spring bath:

- 2.5% Caustic soda

Naphtholate bath:

- 1.75% Naphthol AS-BR
- Alcohol for pasting
- 0.60% Caustic Soda
- 15.00% Salt (brine)
- 2 salt washes, cold 20% salt (brine)

Coupling bath:

- 2.00% Fast Garnet GBC Base—hot water for pasting
- 0.50% Diazopon A
- 2.20% Muriatic Acid 32%
- 1.10% Sodium Nitrite
- 1.25% Acetic Acid 28%
- 1.50% Sodium Acetate
- Run 30 minutes at 60° F.
- Run 40 minutes at 60° F.
- 10.00% Salt brine) drop.

Finish off as shown on naphthol orange or if a bluer shade wanted replace sulfonated fatty alcohol with olate type of soap.

Fast color salts may be used to replace the bases by using approximately three times the amount of bases recommended. This naturally omits the diazotizing operations.

The various types of naphthols, bases, salts and assistants used on package work are as follows:

<i>Name of Colors</i>	<i>Makers</i>
Diazopon A (Dispersing agent for bases)	General Dyestuffs
Neomerpin N (Dispersing agent for bases)	DuPont Co.
Amanil Naphthol AS SW Q	American Aniline Products, Inc.
Amanil Naphthol AS BR	American Aniline Products, Inc.
Naphthol AS SG	General Dyestuffs
Naphthol AS LG	General Dyestuffs
Naphthol AS LB	General Dyestuffs
Naphthanil SW	DuPont Co.
Naphthosol SW	Calco Chemical Co.
Fast Red KB Base	American Aniline Products, Inc.
Fast Orange GC Base	American Aniline Products, Inc.
Fast Scarlet R Base	American Aniline Products, Inc.
Naphthosol Fast Red KB Base	Calco Chemical Corp.
Naphthosol Fast Red AL Salt	Calco Chemical Corp.
Naphthosol Fast Red GL Base	Calco Chemical Corp.

Lecture On Screen Printing

William A. Wolhar, superintendent of dyeing and finishing at Rosemary Mfg. Co., Roanoke Rapids, N. C., recently gave an interesting lecture to the members of the Tompkins Textile Society at North Carolina State College.

Mr. Wolhar was assisted by three Textile graduates of North Carolina State College who are also connected with Rosemary. They were: E. B. Manning, head designer; J. E. McGee, vice-president and assistant superintendent, and J. E. Shaw, assistant superintendent.

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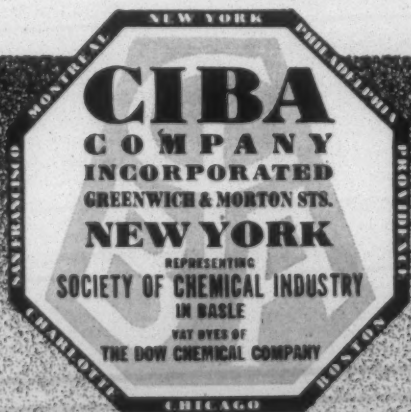
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ARE
READY**

WITH

**Dyes that Meet
All Government
Specifications**

**Efficient
Technical Service**



DYES FOR MASTER DYERS.

New Sanforset Treatment for Viscose Rayon Fabrics

(Continued from Page 28)

any of the accepted trade finishes can be later applied with reasonable care in so doing.

While no special cleaning, washing or ironing instructions are necessary to retain the size dimensions of garments made of Sanforset Treated and Tested Rayon, yet we recommend that you laundryowners retain whatever washing method you have proven best suitable for rayon garments. However, if one with Sanforset treatment should get into your cotton wash no great damage should result, as far as shifting out of fit is involved; yet the question of color or finish damage would still be your concern. The public laundries' first experience with Sanforset fabrics will no doubt be in rayon sportswear garments where often dry cleaning has been done. This dry cleaning method can be continued if preferred rather than washing, but laundering being your primary work, you should profit by this increased wash business. As a matter of fact, continual dry cleaning often results in the necessity of an eventual soap wash.

The treatment can be applied to many classes and shades of piece-dyed colors and prints, but it is expected that it will more generally be applied to fabrics where vat colors are used. It has no effect whatever on a wide selection of dyes used, yet Sanforset's responsibility is naturally limited to the maintenance of its own strict shrinking and stretching standard.

The reaction of the process on the fibers tends to maintain the tensile strength of the fabric; in fact, it usually improves the wet state strength, in some instances as much as 25 per cent.

Demonstrations and trials have been and are being conducted in many finishing plants. Licenses for the Sanforset treatment have been granted to a representative group of holders of licenses under the sanforized-shrunk compressive shrinking patents, and others are being daily considered. Since only little special equipment not usually available in most finishing plants is needed, commercial quantities of Sanforset fabrics are being started as quickly as plants are licensed to apply the treatment, and production procedures ironed out.

TVA Power May Be Used By Georgia Mills

The possibility of obtaining TVA power for Georgia cotton mills was discussed recently by a group of textile mill executives of that State, including the electric power rate committee of the Cotton Manufacturers' Association of Georgia. They voted unanimously to study the Tennessee Valley Authority's service to textile plants in Tennessee and Alabama. Scott Russell, of the Bibb Mfg. Co., of Macon, was appointed chairman of a special committee to confer with TVA officials to ascertain the terms under which the Federal agency's power could be obtained.

Frank A. Decker, of Thompson, Conn., has been added to the staff of Ernst Bischoff Co., Inc., of Ivoryton, Conn., in the textile specialties department. Mr. Decker has for some years made a special study of textiles and dyestuffs.

England's Cotton Exports Decline

Washington, D. C.—Possible market increases for U. S. cotton is reflected in the huge British decline of cotton goods exports during the first half of the current year, the Department of Commerce indicated.

Reports from the American commercial attache in London reveal the volume of British cotton textile exports in that period to show drops of more than 32 per cent from the same period in 1939.

Exports of cotton yarn declined from 67,000,000 pounds in January-June, 1939, to 45,348,000 pounds in the first half of this year, while shipments of cotton piece goods fell from 702,000,000 to 608,020,000 square yards.

According to official statistics, the value of Great Britain's cotton goods export trade during the first eight months of 1940 was 36,794,146 pounds in the corresponding period of 1939 and 33,753,232 pounds in January-August of 1938.

No details as to classifications or countries of destination have been made public.

Avondale Mills Will Continue Insurance for Men in Service

Sylacauga, Ala. — Avondale Mills have notified their organizations that, where requested to do so in each instance by the person affected, they will continue to carry the group life insurance of any of their employees who enter the military service of the United States through the draft or otherwise.

"The company will continue to carry this insurance for a period of 14 months from the time the employee enters the military service, without expense to the employee. In the case of those employees who are drafted this will be two months in addition to the draft period. These two months will allow the employee time to report back to his job with the Avondale Mills, or to convert his group policy to an individual policy if he so desires. "In the event the employee reports back to work for the company at the expiration of his military service he will lose no priority which he would have had had his service with the company been continuous. Should his service with the Government continue longer than the 14-month period either because of voluntary action on the employee's part or otherwise the employee will be expected to convert his insurance and carry it himself if he desires the continued insurance protection."

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N. C. Cotton Manufacturers Have Fine Convention

(Continued from Page 30)

inactive. This coming January, however, the Legislature will be in session, and Mr. Cone emphasized to the manufacturers that a very careful watch on proposed legislation will be kept by Hunter Marshall, secretary, and reports made to the membership on proposed legislation. Mr. Cone particularly emphasized to the manufacturers that before taking any action as individuals in respect to proposed legislation they should consult Mr. Marshall, so that they might have full information as to the implication of any pending bills.

The finances of the Association were discussed by Harvey W. Moore, of Charlotte, chairman of the Finance Committee, who reported a slight increase in the assets of the Association.

From the Resolutions Committee Mr. Ruffin reported the Resolution on National Unity and the customary resolution on deaths of members during the year, and of thanks to the speakers, committeemen, and to all who had contributed to the success of the convention.

Golf Winners

Prize winners in the golf tournament, which is an annual affair at the convention, were as follows:

Manufacturers—Low net, C. J. Beaver, score 69; prize given by Corn Products Refining Co., to be won three times; won in 1936 by A. G. Myers; 1937 by Stuart W. Cramer, Jr.; 1938 by John K. Rutledge, Jr.; 1939 by A. G. Myers; small prize to accompany is held by winner.

Low gross, J. W. Hawthorne, score 80; prize given by Carolina Hotel, to be won three times; won in 1938 by W. H. Ruffin; 1939 by Stuart W. Cramer, Jr.

Second low net, J. E. Millis, score 71; prize given by the Association.

Second low gross, W. H. Ruffin, score 81; prize by the Association.

High net, A. K. Winget, score 82; prize by Association.

High gross, H. F. Hunsucker, score 108; prize by Association.

Associate members—Low net, B. W. Wilson, score 67; prize by Association.

Low gross, Ed Reid, score 69; prize by Association.

Winners in the skeet shoot, conducted by J. E. Moore, of Charlotte, were as follows: First prize, R. C. Moore; second, Walter Gayle; third, Harvey Moore, and fourth, Jim Sandridge.

Index To Advertisers

Where a — appears opposite a name it indicates that the advertisement does not appear in this issue.

	Page		Page
—A—		—K—	
American Cyanamid & Chemical Corp.	17	Keever Starch Co.	59
American Moistening Co.	55	Kempton Parts & Spring Co.	57
American Viscose Co.	—	—L—	
Armstrong Cork Co.	2	Laurel Soap Mfg. Co., Inc.	33
Arnold, Hoffman & Co., Inc.	20	Hotel Lincoln	60
Asheville Hotel	—	Link-Belt Co.	29
Ashworth Bros.	33	Loper, Ralph E.	—
Auffmordt, C. A.	63	—M—	
—B—		Manhattan Rubber Co.	—
Bally, Joshua L. & Co.	48	Mecklenburg Hotel	—
Bancroft Belting Co.	62	Marrow Machine Co., The	46
Barber-Colman Co.	9	Mill Devices Co.	—
Barkley Machine Works	60	Moreland Sizing Co.	—
Barnes Textile Associates	56	Montgomery & Crawford	61
Becco Sales Co.	5	—N—	
Borne, Scrymser Co.	41	National Aniline & Chemical Co.	—
Brooklyn Perfex Corp.	45	National Lead Co.	—
—C—		National Oil Products Co.	—
Carolina Loom Reed Co.	65	National Ring Traveler Co.	54
Carolina Refractories Co.	65	New Departure Mfg. Co.	3
Carter Traveler Co.	50	N. Y. & N. J. Lubricant Co.	—
Charlotte Chemical Laboratories, Inc.	62	Noble, Roy	50
Charlotte Leather Belting Co.	54	Norlander Machine Co.	—
Ciba Co., Inc.	42	Norma-Hoffmann Bearings Corp.	60
Clark Publishing Co.	—	—O—	
Clinton Co.	33	Old Dominion Box Co., Inc.	69
Corn Products Refining Co.	31	Onyx Oil & Chemical Co.	31
Cundiff, John O.	45	—P—	
Curran & Barry	48	Pabst Sales Co.	21
Cutler Co., Roger W.	—	Parks-Cramer Co.	47
—D—		Pawtucket Spinning Ring Co.	57
Dary Ring Traveler Co.	61	Pease, J. N. & Co.	—
Daughtry Sheet Metal Co.	45	Perfect Waxer Co.	—
Dayton Rubber Mfg. Co.	Back Cover	Powers Regulator Co.	—
Detergent Products Co.	—	Proctor & Schwartz	58
Detex Watchclock Co.	—	Provident Life & Accident Ins. Co.	—
Diehl Mfg. Co.	35	—R—	
Dillard Paper Co.	—	Rhoads & Sons, J. E.	52
Dixon Lubricating Saddle Co.	58	Rice Dobby Chain Co.	61
Drake Corp.	6	Riggs & Lombard	34
Draper Corporation	—	Rohm & Haas Co.	—
Dronsfeld Bros.	56	Roy, B. S. & Son Co.	31
Dunkle & Co., Paul A.	65	—S—	
Dunning & Boschert Press Co.	57	Saco-Lowell Shops	25
DuPont de Nemours, E. I. & Co.	—	Sargent's Sons Corp., C. G.	—
Fine Chemicals Dept.	—	Seydel-Woolley & Co.	—
R. & H. Dept.	—	Sirrine & Co., J. E.	35
Dyestuff Division	—	Socony-Vacuum Oil Co.	—
—E—		Solvay Sales Corp.	—
Eagle Roller Repair Works	49	Sonoco Products	—
Eaton, Paul B.	45	Southern Ry.	—
Emmons Loom Harness Co.	—	Southern Spindle & Flyer Co.	63
Engineering Sales Co.	62	Southern Standard Mill Supply Co.	—
—F—		Staley Sales Corp., A. E.	51
Foster Machine Co.	27	Steel Heddle Mfg. Co.	—
Benjamin Franklin Hotel	—	Stein, Hall & Co.	—
Franklin Process Co.	19	Sterling Ring Traveler Co.	46
—G—		Stevens, J. P. & Co., Inc.	48
Garland Mfg. Co.	58	Stodghill & Co.	—
Gastonia Brush Co.	—	—T—	
General Coal Co.	—	Terrell Machine Co.	46 and 50
General Dyestuff Corp.	15	Texas Co., The	—
General Electric Co.	—	Textile-Finishing Machinery Co.	—
George Machine Works, W. J.	45	Todd, Inc., F. C.	53
Gill Leather Co.	—	—U—	
Greenville Belting Co.	45	U S Bobbin & Shuttle Co.	—
Grinnell Co.	—	U. S. Ring Traveler Co.	49
Gulf Refining Co.	—	Universal Winding Co.	10
—H—		—V—	
H & B American Machine Co.	4	Vanderbilt Hotel	69
Hart Products Corp.	—	Veeder-Root, Inc.	—
Houghton, E. F. & Co.	32	Victor Ring Traveler Co.	56
Houghton Wool Co.	—	Vogel, Joseph A. Co.	69
Howard Bros. Mfg. Co.	7	—W—	
Hygrade Sylvania Corp.	43	WAK, Inc.	38
—I—		Watson-Williams Mfg. Co.	—
Ideal Machine Co.	—	Wellington, Sears Co.	48
Iselin-Jefferson Co.	—	White & Co., G. A.	—
—J—		Whitin Machine Works	23
Jacobs, E. H. Mfg. Co., Inc.	Front Cover	Whitinsville Spinning Ring Co.	69
Jenkins Metal Co.	—	Windle & Co., J. H.	—
Johnson Chemical Co.	—	Wolf, Jacques & Co.	8

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Hangers.
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Shows Best Spinning

Washington.—There is no differ-
ence in manufacturing behavior be-
tween irrigated and non-irrigated cot-
ton, but in appearance, yarns spun
from rain-grown is more satisfactory
than those spun from irrigated cotton,
according to tests conducted at the U.
S. Spinning Laboratory at Clemson,
and announced Nov. 13th by the De-
partment of Agriculture.

The tests were in charge of John
M. Cook, who supervises the Depart-
ment's Laboratory at Clemson.

Manufacturers have claimed that
irrigated cotton has more waste than
rain-grown cotton, produces yarn of
lower strength, produces yarns and
fabrics that are unsatisfactory in ap-
pearance, is harder to spin, and is dif-
ficult to dye. These claims and their
reflection in price differences between
rain-grown and irrigated cotton were
responsible for the tests.

Samples for the tests were gathered
during the 1939-40 season from the
Memphis territory, which includes
Mississippi, Arkansas and Louisiana;
from California; and from the Ari-

(Continued on Page 52)

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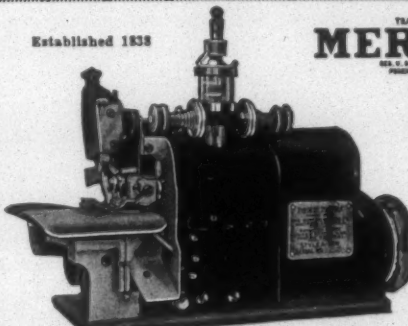
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SCAVENGER ROLLS, ETC.

The **Terrell Machine Co., Inc.**
Charlotte, N. C.

Piedmont Division, S. T. A., Digs Into Wage and Hour Law

(Continued from Page 26)

and teach him in a class. If you do not put him in the production line somewhere he will never learn and will never be worth anything to any employer.

I want to ask a question. Suppose we take a boy who is out of school and has nothing to do and put him in as a sweeper, at 30 cents an hour. Can he come back in and learn to doff after hours? A man can never learn by standing and looking; he has to do the work.

Mr. MacRae: It all simmers down to the same thing—can an employee who works in one department go into another department, after he has worked 40 hours in the first department, to learn? That is the question. I do not know, but it is my opinion and I do not believe they are going to be very liberal relative to having an employee leave one department and go to another department to work for nothing just to learn, when the goods are going to be produced there. I do know. I think you will have to submit that in writing. I know that an employee may be permitted to go back and learn, but whether he may do so in the production department I do not know.

Mr. E.: I do not see how he can learn unless he is in the production line.

Mr. MacRae: How long does it take to learn?

Mr. E.: It takes a girl or woman six months to learn to be a good spinner. It takes several weeks to learn to doff.

Mr. MacRae: Do they have to come up the line and learn all those things in order?

Mr. E.: Oh, no; you can take a green hand and make a spinner out of him, if you have the green hand.

Mr. D.: Did you say there are three or four men in the field whose duty will be only to study exemptions?

Mr. MacRae: To study cases in which exemptions are applied for.

Mr. D.: This trouble the members have been speaking about has been going on all the while. With the textile industry the second largest industry in the country, why would it not be possible to get the government to assign one man to the textile industry? You are taking the key men from these fellows, and they are allowed only a certain percentage of employees as learners.

Mr. MacRae: What percentage are they allowed?

Mr. E.: Three per cent. Those learners have to be paid.

Mr. D.: What I want to ask you is what kind of procedure the textile industry can go through in order to get one man to study its problems. If we can get that we may be able to get battery hands to come in and learn to weave and doffing hands to come in and learn to spin—if we had one man in the United States to study our problems.

Mr. MacRae: You might write and make application for one man to be assigned by the Administrator to study your industry. The only man that could grant exemption would be the Administrator himself. He has men that do that, that go in and study the conditions in an industry

and, after studying them, recommend changes to be made or not to be made.

Mr. D.: It seems to me that we should write the Administrator in Washington and ask him to put one man in the industry to learn our problems.

Mr. A.: I do not think that is necessary. I think the Chairman, for instance, could put up that problem to the State Administrator.

Mr. MacRae: What about a higher percentage of learners in your departments? You say you have 3 per cent now; suppose that were raised to 10 per cent, or to 5 per cent?

Mr. A.: We have to pay those learners, you know.

Mr. MacRae: That is right.

Mr. A.: In other words, the proposition we have before you is not to hurt our employees. I think every employee in my mill would stand by what I say—that they want to learn. Once they become efficient, don't think for a minute that they are going to let the mill take advantage of them.

Mr. MacRae: You do not want to pay these learners anything for their learning time?

Mr. A.: No.

Mr. MacRae: I do not think that would be permitted. I think the learner situation might be extended, but after a man works 40 hours in the plant and then comes back to work additional hours I do not think that would be permissible.

Mr. A.: It would be purely voluntary, you understand.

Mr. MacRae: Yes.

Mr. A.: You can see the situation the industry is going to run into.

Mr. MacRae: Yes, but I do not think that would ever be permitted—that a man would be allowed to go into the plant and work for nothing.

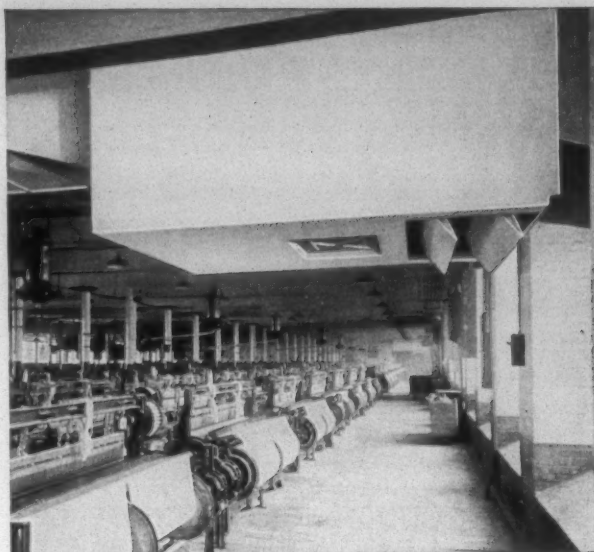
Mr. A.: If he already had one job?

Mr. MacRae: That is right—where he worked in one department 40 hours and came back and worked in another production department I do not think he would be permitted to work for nothing.

Mr. A.: Do you think there would be any possibility of getting a change?

Mr. MacRae: There probably might be a change in the learner situation. You might be permitted a greater percentage of learners. I think it would be a very good plan for you to appoint a committee to meet with me and iron out all the little trifling things, and then I shall be glad to have the Administrator come to Charlotte and meet with the committee. If he decides to do it, he can do it with a stroke of his pen. I had much the same situation in New Orleans with the garment workers. They had five different minima, depending upon the kind of goods they worked on. We got all the trifles ironed out, and then the Administrator came down and met with the committee of eight, and on his return to Washington he got it all straightened out.

(Continued on Page 50.)



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In developing the modern Airchanger idea for you, we started to answer the questions you textile men have been asking. Why up and down humidity? Why spotty conditions?

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But all the time it is the humidity that stays put—and in all parts of the room.

It is that kind of automatic regulation that makes it an Airchanger. And only the Parks Automatic Airchanger has regulation like that.



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BULLETIN

"Want Ads"

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Cotton Goods Markets

New York.—Trading in cotton gray goods has settled back down to routine in most cases, following the splurge of buying a few days ago. The reason advanced for the sudden spurt in buying was the arrival of news that the Secretary of the Treasurer has asked for an extension of the debt limit, and in the last two hours of trading on the day of the announcement it was estimated that more than 10,000,000 yards of print cloths and related cloths were disposed of.

The continuation of the buying during the remainder of the week ending November 1st is said to have resulted in many mills being sold up on their production through February and in some cases even further ahead.

In some instances, mills refused to sell and withdrew from the market for the time being. Most producers are reluctant to sell too far into the future for fear that they may be called upon to divert part of their equipment to defense contracts. In view of the shortage of many types of cotton goods, it is quite possible that the priority ruling may be invoked in order to obtain sufficient materials to cover the nearby requirements of the defense forces.

An analysis of the bids opened at Jeffersonville on Nov. 12th for ply yarn, tent duck, for the army, to supply 8,582,000 yards of a single yarn 10.25 ounce tent twill, revealed that hardly more than half of the desired quantity was offered by the industry.

It is reported that developments with additional substitutes are already under way and are likely to continue until a satisfactory cloth is produced. The latest experiments indicate that mills are working in two directions. One tendency is to weave toward a lighter weight tent cloth than the one one which bids have just been opened, and the other is to weave toward a slightly heavier material. Both would try to retain the Army's desired breaking strength of about 109x150.

There is a strong opinion in some centers that the Army will be forced further to modify its standards. The ideal, according to one viewpoint, would be a "commercial substitute," which is defined as a fabric that goes about 80 per cent of the way in meeting the maximum service standards, but can be produced in commercial quantities.

Those who favor a lighter cloth have in mind the logic of adjusting themselves to the known fact that the availability of looms capable of producing lighter weights is greater than that of machinery suitable for heavier materials.

J. P. STEVENS & CO., Inc.

Selling Agents

40-46 Leonard St., New York

Cotton Yarn Markets

Philadelphia.—Delivery difficulties have begun to cause some buyers to switch from sorts they prefer using, to other counts which, for the present, at least, are in easier supply for the most-sought deliveries. This is chiefly to be noted thus far in the ply yarns, both carded and combed, but in some cases the single counts also are affected. This tends to make recent additional price advances more or less selective, and this condition is emphasized in those counts that have a range of uses as substitute yarns.

At prices that are definitely on a profitable basis, a number of sale yarn spinners are engaged in booking second quarter deliveries, with some customers showing willingness to operate liberally ahead at higher prices than any they previously paid since the advance began. These sources have realized their advanced asking prices in numerous cases, it is claimed, some customers paying a cent more between sales.

The tightness in deliveries of certain carded and combed yarns, it is explained, is putting these counts out of line with the rest of the list, but spinners are trying to keep their differentials as nearly normal as possible. That is, counts that have lagged in demand have in some cases stiffened along with the leaders, though not as much.

In carded single and two-ply yarns, there has not been a general price advance since the middle of last month, and it is thought likely that from now on the key numbers will be priced more or less independently, the spinners expecting a commensurate share of operating profit in relation to the scarcity of certain counts for the most-wanted deliveries. This condition is deemed likely to continue indefinitely and from time to time will probably be aggravated by sudden inroads into future production of the sorts of yarn suitable for use in Government work. As has been the case since early last summer, the Government will continue to be on short notice of a considerable part of its requirements which, in effect, will take precedence over civilian needs.

It is understood that the leading sale yarn mills are covered on their cotton to date, but on the next yarn buying movement it is deemed likely they will cover more confidently ahead and this is regarded as likely to affect prices of yarns and some types of cotton goods before the end of this month.

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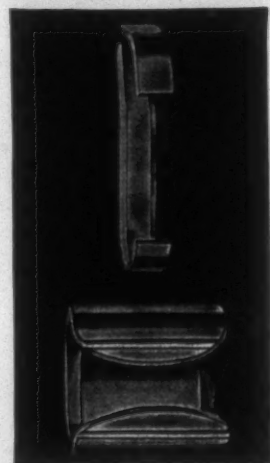
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Piedmont Division, S. T. A., Digs Into Wage and Hour Law

(Continued from Page 47)

Mr. F.: I wonder if they have ever taken into consideration the amount of money it costs a textile plant to teach people.

Mr. MacRae: Yes, I think that has been considered, but it might be brought up again.

Mr. G.: If you pay a man for learning and pay the man who is running the job, then you are paying two men, because you promote the one and give another man a job.

Mr. MacRae: You change the status of two employees. Of course, I do not know just what your employment conditions are. That is a matter to be considered when you make the application. They have all the facts. I cannot even assume that you do not have the employees or that you do.

Mr. H.: I think it has been brought out before that we have this provision for learners, this percentage of the workers. But we in the industry are faced with this; even though we have this provision, we have six weeks to learn a job, at 25 cents an hour, a job that takes six or eight months to learn. So rather than take it all up we have just stayed clear of it in the hope that in the future there will be some provision for paying by a piece rate or in some other way for the actual amount he produces in the process of learning.

Mr. MacRae: Weren't those points brought up when the learners' exemption was granted?

Mr. H.: Probably they were.

Mr. MacRae: I imagine that was brought up very strongly.

Mr. H.: I know at the meeting in Asheville, the Regional Industrial Conference, the feeling was that, rather than go through all that red tape, we would just keep our hands off and let the Government do what it wanted to do.

Mr. MacRae: They are all points that should be brought up, if they have not already been brought up in the past.

Have you any apprentice situation in your industry?

Mr. H.: The fewer apprentices we bring in, the better the minimum wage.

Mr. MacRae: There is a provision for apprentices in the law; they start at the bottom and go all the way through. A period of two years is allowed.

Mr. I.: I have gone into that, and I do not think it applies to the textile industry. It applies to trades like the machinists' trade, etc., that take a long time to learn.

Mr. J.: I understood that there was a man who tried to get some certificates allowing him to have learners, within 2 per cent of his total number of employees; and it became known that he could go around somewhere and find somebody already trained, and they would not grant his application for learners' certificates. I do not know whether that is true or not.

Mr. MacRae: Your main problem, then, is this learners' situation?

A Member: That is the worst one.

Mr. I.: That is the biggest problem in the textile industry. A county superintendent of welfare recently told me that she was seriously alarmed over the situation confronting her. She said so many young people are growing up who could work if they could have a chance to learn, but they have no chance to learn, and that in a few years she would have a serious problem on her hands. I understand that the purpose of the law was to spread employment, but it is killing jobs instead of providing them.

Mr. MacRae: In other words, the learner provision in the textile industry is not adequate?

Mr. I.: Not adequate at all, no, sir.

Mr. MacRae: I think that is a problem for the Administrator in Washington; it is a much more serious problem than I can take up here. You understand that they have all the facts in Washington; they probably have voluminous files on that. If conditions have changed, economic and other conditions, then I think the matter should be presented to the Administrator. If what has been granted is not satisfactory and is working adversely to you people I do not think anyone can give you any definite relief except the Administrator himself.

Mr. I.: We realize that from the statements you have made. I should like to add to what I said about what the county welfare superintendent said to me what a State official said to me a few weeks ago—that he was alarmed

also over the situation because of what it is doing to our young people in depriving them of an opportunity to learn.

I think we have covered that, and I should like to ask now the meaning of the word "professional" as used in the law. Those things are expressed in such language that an average cotton mill man like myself cannot understand it.

Mr. MacRae: I can boil that down for you very definitely. A professional man is a man who has a degree in his profession and is working at that profession.

Mr. I.: You mean a college degree?

Mr. MacRae: Yes, sir. If you have an electrical engineer who has a degree in electrical engineering from a recognized college and is working at his profession, he is classed as a professional man.

(Continued in Next Issue)

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F. W. Warrington Co., of Charlotte, N. C., well known sales agents, have been appointed Southern representative for Rodney Hunt Machine Co., of Orange, Mass.

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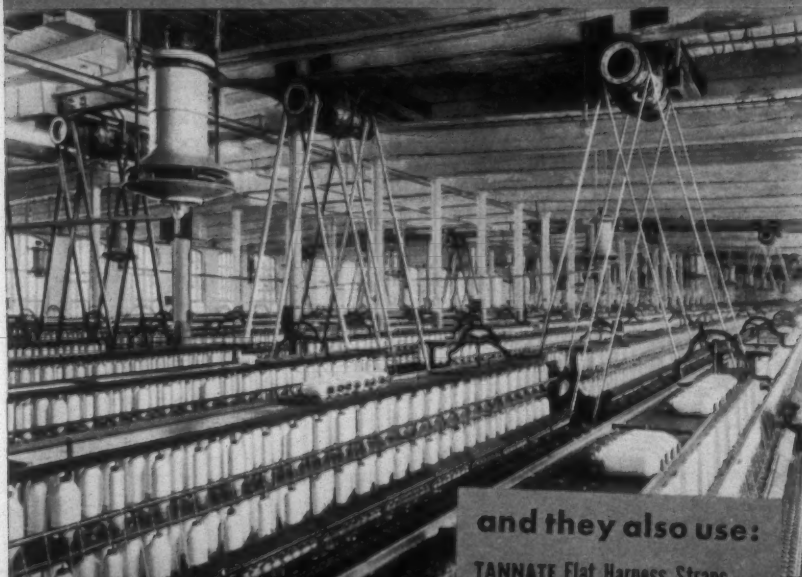
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Rain Grown Cotton Shows Best Spinning

(Continued from Page 45)

zona-Mexico Southwest territory. The samples, believed to be representative of the crop in each area, were packaged and shipped to Clemson. They were spun into yarns and tire cords and woven into cloth under controlled laboratory conditions.

Grade for grade these tests showed that cottons having lengths of 1-1/16 and 1-1/32 inches produced in the Memphis territory yielded less manufacturing waste than those from sections where the cotton was grown under irrigation. But the longer staple 1 1/8 cotton produced in the Memphis territory was somewhat inferior to California cotton from the standpoint of waste.

These tests showed that yarns spun from cotton having staple lengths of 1-1/16 and 1-1/32 inches produced under rainfall conditions in Memphis territory were neither consistently higher nor lower in strength than those produced under irrigation in California. But yarns made from 1 1/8 inch cotton from the Memphis territory averaged about 4 per cent stronger than those made from California cottons. In all three staple lengths, cotton produced in the Memphis territory yielded yarns 2 to 11 per cent stronger than those made from irrigated cotton from the Arizona-New Mexico-Texas region.

In appearance, yarns spun from rain-grown cotton were more satisfactory than those spun from irrigated cotton. Yarn appearance is measured by comparison with standards prepared by the Agricultural Marketing Service which shows variations in neps, foreign matter, and evenness of yarns. Differences in yarn appearance are reflected in cloths manufactured from the yarns.

Fabrics made from the yarns spun from cotton produced under rain-grown conditions in the Memphis territory were in most cases easily distinguished from those made from yarns spun from irrigated cotton. Fabrics made from the non-irrigated cotton contained fewer neps and particles of foreign matter than those made from corresponding grades of irrigated cotton. Yarn and fabric appearance is particularly important in uses such as dress fabrics, where a smooth uniform appearance and texture is desired.

So far as manufacturing behavior was concerned, there was no difference. All of the cotton used in the comparative spinning tests were processed on the various machines without any unusual difficulty.

Dyeing tests of yarns and fabrics will be undertaken later.

How To Order Spinning Bobbins

The American Bobbin Co., of Lewiston, Me., has recently sent out the following pertinent information on ordering bobbins. The information, printed on the back of a blotter, tells what information the bobbin manufacturer should have, as follows:

To get the greatest amount of good from his service it is imperative that he should have:

A sample bobbin, as perfect as possible so that duplication may be exact. Changes, if any, should be clearly outlined as to: combination shields and bushings; plain inside bushings, either top or bottom; brass tips; rust-proofed rings or special finishes; also whether birch, beech or maple is desired.

A true running spindle is most essential. If your new bobbins are to run on new spindles, be sure that a new spindle and bolster accompanies sample. If new bobbins are to run on old spindles, pick out the best spindle and bolster you can find. Careful spindle selection determines the true-running qualities of the bobbins you receive.

The bobbin-maker cannot know of multiple spindle fits—cannot tell from the inside of an old bobbin that this condition exists, so if your bobbins are to fit more than one style of spindle, be sure that each type spindle on which the bobbin is to run, accompanies the sample. The bobbin-maker cannot be held liable if detailed information as to multiple spindle fits, plugs or pin boards is withheld and all spindles concerned are not furnished when order is placed.

Be sure that the spindle is file-marked so that the new bobbins will fit in relatively the same position on the spindle as those you are now using. Bobbins long in use, without the protection of metal bushings, become reamed out and fit at a much lower point on the spindle cone than when new. Consider well if the number of old bobbins you have on hand should be bushed to bring both old and

new bobbins to the same level in your frames.

If a new spindle, file-marking is even more essential, as every mill man knows at what point his bobbins will run best and operate to the greatest efficiency and his satisfaction.

By this close co-operation between the mill, the contact man, and the bobbin maker, a large percentage of misunderstandings, hold-ups in production, reworkings of bobbins, may be avoided, with resultant savings to all.

New Lamp-Shielding Louver for Benjamin "Stream-Liter" Fluorescent Fixtures

While the shielding angle provided by the reflector skirt of Benjamin RLM "Stream-Liter" fluorescent lamp fixtures is satisfactory for most industrial plant applications, additional shielding of the long lamps used in these fixtures is often desirable to achieve greater eye comfort and freedom from glare in drafting rooms, laboratories, offices and many commercial locations.

This is said to be provided by the new Benjamin Louvers, which as an accessory attached instantly and conveniently to any Benjamin "Stream-Liter," and increase the shielding angle to approximately 23° in all directions. Such increased shielding hides the lamps when viewed from the side or end of the reflector in all normal angles of vision.

Negro Mill Worker Accidentally Killed in Charlotte

Charlotte, N. C.—John Audrey, negro of Mint Hill, was accidentally killed a few days ago while packing cotton into a compress at Highland Park Mill No. 2, according to a city police report. The lid of the compress flew off, striking Audrey in the head. He was taken to Good Samaritan Hospital, where he died shortly afterwards.



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CHARLOTTE LEATHER BELTING COMPANY

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INDUSTRIAL LEATHERS FOR EVERY PURPOSE

Standard Regain of Cotton Yarns

(Continued from Page 16)

yarn is based on a regain within the limits specified in Standard Regains of Cotton Yarns, Commercial Standard CS11-—, as issued by the National Bureau of Standards, U. S. Department of Commerce.

Calculations for Adjustment

17. The following formulas are not to be considered a part of the commercial standard but are given for the convenience of those making adjustments in invoice weights.

Having determined the regain of cotton yarn at time of delivery, the regain of the cotton yarn at the time it was weighed for invoicing may be determined from the formula,

$$R_1 = \frac{W_1}{W_2} (100 + R_2) - 100.$$

18. If this calculated value of R_1 is not within the limits specified herein, the standard weight may be de-

termined from the formula, $W = W_2 \left(\frac{100 + R}{100 + R_2} \right)$.

In both formulas,

W = Standard weight in pounds.

W_1 = Invoiced weight in pounds.

W_2 = Delivered weight in pounds.

R = Standard regain in percent.

R_1 = Regain of yarn as invoiced, in percent.

R_2 = Regain of yarn as delivered, in percent.

World Cotton Supplies Will Be 50,000,000 Bales This Year

Washington, D. C.—The Bureau of Agricultural Economics, estimating world cotton supplies at 50,000,000 bales and United States supplies at half that amount, predicted on October 31st a record carryover on next July 1st. It added, however, that increased domestic demand and the government loan program were cushioning the effect of loss of foreign markets on prices.

The supply figures were virtually the same as those for the last three years, the bureau said, but the world effective demand for cotton appeared likely to be much less this season than last.

"If the British blockade continues in effect," the bureau said, "world demand probably will be the weakest for several years. Practically all of continental Europe excluding Russia, where in the five years ended July, 1939, consumption of imported cottons averaged roughly 5,000,000 bales, including 2,500,000 bales of American, is cut off from exporting countries by the British blockade. Furthermore, consumption prospects in Japan, China, and Great Britain are less favorable this season than last."

World consumption, it was said, might be reduced to the lowest level since the early 1930's.

In addition to the inaccessibility of most European markets and unfavorable consumption prospects in most other important importing countries, the bureau said, the unusually high relative price of United States cotton in world markets was a factor in demand abroad. Sales of United States cotton, the bureau continued, had virtually

ceased in recent weeks in Canada, Japan and Spain, where the Brazilian product could be obtained 10 to 25 per cent cheaper.

Under the stimulus of large government purchases of cotton textiles and the prospective high level of industrial production, employment and payrolls, the bureau said, United States cotton consumption seemed likely to rise to 8,500,000 or 8,750,000 bales as against 7,750,000 bales last year.

Under the government loan program, it was noted, most of the domestic stocks of old crop cotton were being withheld from trade channels and a large part of the new crop was eligible for loans at rates about one-fifth to one-third of a cent per pound higher than the 1939 rates.

"As a result," the bureau said, "domestic prices of spot cotton are being supported at about the 1940 loan rates, despite weak world demand conditions. Domestic prices, which averaged a little higher in early October than a year earlier, were only slightly higher than the average for 1937-38 and 1938-39 when, except for 1931 and 1932, prices were the lowest since the beginning of the World War in 1914.

"If prices continue about as in early October, the considerably larger 1940 production will give cotton producers an 8 to 10 per cent larger return from cotton this year than last. Such returns, however, would be about one-half of the average for the decade of the 120's."

The bureau said that most of the American cotton to be carried over probably would be in this country and most of it would be owned or held as collateral by the government.

Sums Paid By Firms To Draftees Can Be Deducted for U. S. Tax

Washington, D. C.—Sums paid to employees absent in the military service of the United States or serving the Government in other ways at a nominal compensation during the present emergency will be deductible from gross income for Federal income tax purposes, Secretary of the Treasury Morgenthau has ruled in response to numerous inquiries by business organizations and employers.

In making his ruling, the Treasury Secretary pointed out that a similar practice was followed in 1917 and 1918, which was made a part of Regulations 45 promulgated under the Revenue Act of 1918. In ruling that the same would apply to salaries paid during the present emergency, the Secretary said:

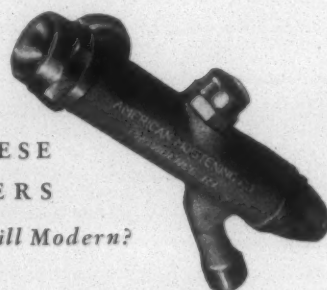
"Advice is requested whether a company, which intends to make payments of salaries to employees who are called for military service may deduct amounts so paid from gross income for Federal income tax purposes.

"In 1917 and 1918 many employers adopted the practice of making such payments. At that time the question arose whether employers could deduct the amounts so paid from their gross income. It was held that salaries paid by employers to employees who were absent in the military or naval service or were serving their Government in other ways at a nominal compensation, but who intended to return at the conclusion of such services, were allowable deductions from income.

"The same rule will apply to salaries paid during the present emergency."

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the boss can't
make money"*

We quote the foreman of a well-known worsted carding room. "It costs real money to repair a poor carding job. Yes, the short fibres can be combed or drafted out . . . but costs are higher and the result isn't the same." See that *your* cards—the backbone of your mill—operate in a condition of Adequate Humidification, closely controlled. That's how Amco provides "money-making air."



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Erecting, Overhauling and Fixing Looms

(Continued from Page 14)

angles, with the lay, and adjust the feeler stand, or bracket, to a point where the outer edge of the feeler case will be in line with the second ring of the bobbin in the shuttle, indicated by dotted line in I, Figure 33.

Make sure before tightening the stand, or bracket, that the feeler blade contacts the bobbin at exactly center point, or fullest part of the bobbin. Adjust the connecting wire 6, Figure 33, so that the feeler blade will slide inward about $\frac{3}{32}$ of an inch before contacting the end of the connecting wire. Make sure that the filling cam follower end is on the lowest point of the filling cam, then set the filling cam follower trip, 8 in Figure 33, to have $\frac{1}{8}$ of an inch clearance at top and at the side of the lifting lever 7, Figure 33.

Comments On Setting the Filling Feeler

The midget sliding filling feeler being the preference of most weavers, and the one most universally in use, I have selected it as the one to cover. If one has acquired the fundamentals in applying and setting the midget feeler they should be able to apply and set any of the sliding feelers; in fact, any type of filling feeler.

To get an accurate setting on the filling feeler the bobbin in the shuttle must be tight and absolutely straight, and all excessive lost motion out of the crank arms, otherwise faulty operation of the filling feeler will result.

The picker should be in good condition, properly paralleled and thoroughly tight on the picker stick. If the picker is reamed out too deep, or worn too badly, it will allow the shuttle to go too deep into the shuttle box and allow the feeler blade to contact the bobbin too far out towards the small end for proper operation of the feeler.

The feeler blade should slide on the smooth part of the bobbin, as the notches will retard its sliding movement and prevent its proper functioning.

If the picker is too low the shuttle will be depressed on the end next to the picker and allow the other end to rise in the box, and thereby throw the bobbin out of line with the feeler blade. The feeler blade will then have a tendency to dig underneath the bobbin and retard the sliding.

If the picker is too high, the shuttle will rise in the box on the end next to the picker and will also throw the bobbin out of line with the feeler blade. The feeler blade should never be bent, the loom builders have designed it properly, and it will do the job is used as they furnish it, provided, of course, it has the proper adjustments.

Should the feeler blade become bent from any cause, it will be necessary to remove and straighten it or replace it with a new one, because proper adjustment and operation is absolutely dependent on the blade retaining its original shape and design. The feeler blade should work free of any binding whatsoever in its backward and forward and sidewise movements.

On all sliding feelers the feeler blade should strike the bobbin at its fullest point, or exactly in the center. If the blade contacts the bobbin high or low it will be inclined up or down and will thereby retard the sliding movement of the blade and will also cause excessive wear on the blade and the feeler case. This is further reason why the picker should be paralleled perfectly with the shuttle points with the shuttle resting flat on the lay end plate.

If the feeler blade is bent between the points indicated by X marks I, Figure 33, it will touch the end of the connecting wire occasionally and raise the lifting lever to changing position or partly full bobbins to be transferred. Care should be taken to make sure that the feeler blade is not forced back too far by the forward movement of the lay.

When the feeler is positioned to allow the blade to contact the empty bobbin when the lay is 5/16 of an inch back from front center position, the desired results will be obtained. This is sufficient to give the needed sidewise stroke to the blade. Too much sidewise stroke on the blade will bind in against the case, or the connecting wire, and will bend the blade out of shape and thereby cause plenty of trouble.

If the feeler blade is allowed to contact the bobbin too quickly, or further back than 5/16 of an inch from front center, and the shuttle should happen to rebound, the blade will be pulled sidewise on the rebound of shuttle and will occasionally cause transfer of full or partly filled bobbins.

To obtain best results from any of the sliding filling feelers, it is absolutely necessary to have the bunches of yarn put on the bobbin properly, the proper size, and in the proper place, as shown in 9, Figure 33. The lifting lever 8, Figure 33, should start to rise into changing position 5, Figure 33, when the lower point of the filling cam follower trip 7, Figure 33, is $\frac{1}{8}$ of an inch up and $\frac{1}{8}$ of an inch back from the inner top point of the lifting lever, and the filling cam follower trip should be on the move backward at this point. This will positively insure the proper contact of the filling cam follower trip and the lifting lever. There are various types of filling cam follower trips and lifting levers, but this setting should work satisfactorily on all of them.

Shown in 2, Figure 33, is a feeler blade for cop filling. Because the feeler blade will dig into the soft surface of a cop tube and fail to operate, the feeler blade for cop filling is fitted with an adjusting screw. With the screw head against the outer wall of the shuttle, adjust for minimum clearance between feeler tip and the cop tube, so that tip does not dig into the tube when the head of the adjusting screw slides on the shuttle wall.

Two New Miller-Ivanhoe Fluorescent Lighting Developments


Two new fluorescent lighting developments of particular interest to industry have just been announced by The Miller Co., of Meriden, Conn.

The first is the Ivanhoe "Masterlite" for general and localized industrial illumination. This is a Miller engineered fluorescent unit designed to give a better general overhead illumination of production areas than has heretofore been available. This unit conforms to RLM standards specifications for a 48" twin 40-watt unit.

The second development is the Miller "50-Foot Candler," the first 50-foot candle RLM continuous fluorescent lighting for general illumination. Continuous row lighting is new—efficient and modern. The "50-Foot Candler" brings it to still greater efficiency and usefulness with the light intensity recommended by lighting authorities for good seeing conditions. This unit available in either single or double length wiring channels for two or three 40-watt lamps.

More Production

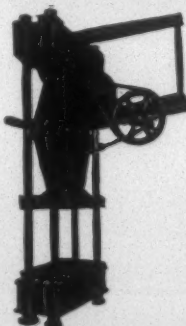
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48 Oz. Conveyor Belt

The first conveyor belt ever made of 48 oz. duck has been produced by the U. S. Rubber Co. Significantly, it is the largest single unit slope conveyor belt in the world. It is now in operation in the Fifth Vein Coal Co., of Harrisburg, Ill., where it was installed by the McNally-Pittsburg Mfg. Corp., of Pittsburg, Kan., who supplied and erected this plant.

The belt is a 9-ply Matchless, 1,530 feet long and 54 inches wide, weighing 35,000 pounds net. It conveys 1,000 tons per hour run-of-mine coal at a speed of 350 feet per minute from underground hopper and feeders which receive the coal from the mine cars in the coal seam and lifts it 206 feet—equal to the height of a 20-story building—to the preparation plant up a slope of 16.5 degrees.

The 48-ounce fabric, it is said, provides all the advantages of the 42-ounce duck, which was also originated by the U. S. Rubber Co., and which, up to now, was the strongest duck used in conveyor belts. U. S. Matchless Conveyor Belt with 48-oz. duck, therefore, is regarded as a substantial contribution to industrial progress.

Among the advantages cited for this belt are: (1) It has a soft weave with special strength characteristics, and avoids the practice sometimes resorted to of using a hard stiff weave to obtain strength; (2) it takes the friction as easily as all former standard conveyor ducks; (3) handles 60 pounds safe strain per inch per ply, or one-third more than 42-ounce; (4) it makes possible the use of conveyors one-third bigger than ever before attainable, thus permitting installation of single units of greater lengths, lifts and tonnage; (5) cost per pound is no greater than standard ducks of lesser weight.

New Plastic From Cottonseed Hulls May Have Possibilities for Fabrics

Knoxville, Tenn.—A new plastic made of waste cottonseed hulls, which appears to have the same chemical properties as the phenolic compositions, and which is expected to be produced as "one of the least expensive plastics on the market" has just been developed by a group of University of Tennessee research workers, headed by John F. Leahy.

Experiments are continuing at the University on the possibility of spinning a yarn similar to wool from this compound. This project is looked upon optimistically as laboratory work elsewhere is considered to have demonstrated the likelihood of obtaining such a protein fiber.

The new plastic is at present being used to make sheaves for textile looms by a Knoxville company, National Plastics, Inc., but its potential applications are considered to be very broad.

For test purposes, the new plastic compound was sent to a Chicago plant where actual samples of ash trays, ice tea coasters, and other articles were moulded. Its suitability for electrical appliance parts, radio cabinets, tile board for walls, fountain pens, telephone, automobile parts, etc., is indicated by the tests made, according to Mr. Leahy.

The inventions and discoveries developed by the school

will be released to industry through a non-profit organization, the University of Tennessee Research Corp., whose officers include the president of the University, Dr. James D. Hoskins, as well as other University trustees and officials, and Tennessee industrialists.

The importance of the plastic in the business world is increased by the fact that it is made from a waste product, cottonseed hull, into a hard, black durable material. Cottonseed hulls up to this time have been used by farmers only to burn for fuel or to feed cattle.

The development of the new plastic is based on six years of work. Special cottonseed oil pressure cookers which reduce the time necessary for processing the hulls from 2 hours to 15 minutes, also were developed and are now in use in several mills.

Director Leahy believes such developments such as these may enable American cotton to compete for the world market. He emphasized that the purpose of the University's research is "to expand the value and uses of cottonseed to the end that cottonseed may become the principal product and staple cotton the by-product of the cotton plant."

While many indications were given of the confidence the directors of the research have in the progress they've made to date on both the plastic and new cotton fabric, they've hesitated to comment on probabilities until their research and testing are more advanced.

The University's Agricultural Experiment Station is trying to develop a new variety of cotton plant which will produce cotton fiber of better quality. Dr. K. L. Hertel, recently invented a fibr-o-graph which measures the length and fineness of cotton fiber by means of an electric eye.

The University has set up on the campus a "Cotton Institute" to co-ordinate its research on cotton. Research workers on various phases discuss their work at Institute meetings and plan on how all work will fit together to improve conditions of the South.

Bibb Mfg. Co. Net Profit in Year To August 31st Is \$2,073,109

Macon, Ga.—Net profit of \$2,073,109 is reported by Bibb Mfg. Co. for the year ended August 31, 1940, compared with net profit of \$1,096,071 in the preceding fiscal year. Earnings are equal to \$10.36 a share and \$7.83 per spindle as against \$5.48 per share and \$4.14 per spindle in the year ended August 31, 1939.

Net manufacturing profit for the past fiscal year amounted to \$3,344,409 as compared with \$2,067,117 in the 1939 period. Depreciation charge amounted to \$677,300 against \$671,046, while reserve for income taxes was \$594,000 against \$300,000 in the year ended August 31, 1939.

The balance sheet as of August 31, 1940, shows total current assets of \$9,730,317 and total current liabilities of \$522,599 as compared with \$7,528,368 and \$460,254 on August 31, 1939.

Burkart-Schier Handbook On Metasol

Burkart-Schier Chemical Co., manufacturers and whole-salers of chemicals, Chattanooga, Tenn., has prepared a new handbook, "The Textile Application of Metasol (Calgon)," which gives detailed information covering the use of Metasol in conducting the wet-processing operations of scouring, bleaching, dyeing and finishing.

The handbook is conveniently divided into individual sections, each applying to major textile fibers. In addition, there is a general discussion of the use of Metasol in processing all types of hosiery. The text contains numerous suggested procedures, formulae and other practical data. Copies will be sent by the company upon request.

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Good Mill Housekeeping Discussed At Northern N. C.-Va. Meeting

(Continued from Page 18)

Chairman: Education.

Mr. E.: Yes, education, and to put cuspidors around for them. I used to chew tobacco myself. I got to the point where it was almost necessary for me to carry a cuspidor on a string around my neck. I got tired of that, so I just quit chewing tobacco.

Chairman: We have a break in handling this problem now, because you know a few years ago practically all the girls used snuff. Now they smoke. It is a hazard to have spit on the floor. Anyone wearing rubber heels who steps on that spit is likely to slip and fall.

A Member: I saw that solved in one mill. The superintendent would not let anybody work in the mill who chewed tobacco. He had the floors scrubbed almost white. And it worked; he had a mill full of folks.

Chairman: That might be called coercion.

A Member: You prohibit smoking in your mill. Why not prohibit the chewing of tobacco?

Chairman: They still might call it coercion.

Mr. I.: I think the best way to solve this problem of spitting is by good supervision and good housekeeping. I believe that is the best way out. I know of one mill where the superintendent had all the cuspidors taken out of the mill and told the people they could not chew tobacco. He woke up one day and found all his box motions and places like that covered with spit. It was necessary then to go back and put cuspidors in the mill, which he did. It was all cleaned up, the corners and everything cleaned out, and that mill today is one of the nicest looking mills I know.

Chairman: I think the answer to it is the psychological effect. A clean mill and an educational program to make people think, plus convenient places to spit, go a long way to solve the problem.

Mr. E.: We tell our people to chew all the tobacco they want but just be careful where they spit and use the cuspidors.

Cleaning Floors

Chairman: Thank you, Mr. E.

Let's take up now the last part of that question, "How do you clean your floors and what schedule do you follow?" I think I can relax on that and turn it over to Mr. Core. He cleans probably more floor space than anybody else here. He does it to sell his machine.

John T. Core, of Richmond, Va., Dist. Mgr. for Finnell System, Inc., of Elkhart, Ind., then described the floor-cleaning machines and service furnished by his company.

Mr. M.: Has anybody tried that new floor coating that is being used in some places?

Chairman: I have seen that used, and from most of the reports I have had on it people like it very much, especially for the card room and the spinning room. I have had very bad reports on it when used in other places. The ultimate result is a very bad floor. That is a coating, gentlemen, and it keeps the dirt on top. In other words, it makes the floor like a window pane. Some of the South Carolina mills have it in their plants. They let it go about six months, then scrub the floor and put it back on.

It is 12 o'clock now. Rather than try to finish the rest of the questions, I will read them over and let you indicate whether you want to discuss any of them. They are as follows:

4. What system do you use for cleaning overhead in the carding, spinning, and weaving departments? What is your method and schedule for cleaning machinery?

5. What plan do you follow for beautifying mill yards and the villages? What system do you use for keeping them clean and attractive?

6. What effect does good mill-housekeeping have on your safety record? On the quality of your goods? Are there any other advantages?"

Mr. E.: Mr. Chairman, I am interested in the overhead cleaning in the weave room.

Chairman: Shall we discuss that one? Hands up, those that want to discuss cleaning the mill. Now those who want to discuss beautifying the village. Sorry, but we have voted to stay in the mill.

Mr. E., what method of overhead cleaning do you use?

Mr. E.: We have a man whose principal job is cleaning overhead. We try to brush down with a broom and have one man who does that all the time. My policy is to keep it clean all the time. There are places, such as near the humidifier and the joists, and often the lights, that get pretty heavily loaded. We try to watch those places and clean them up oftener. We have found that it is much better and that we have less seconds from falling dirt if we do not let it accumulate; in other words, if we are cleaning all the time. If for some reason the cleaner is out and we do not place some other man on the job for a day or two, then when it is cleaned down we feel almost that we should stop the job and cover everything up.

Question: Do those same fellows clean the humidifiers?

Mr. E.: No. They clean the walls and windows.

Chairman: Have you ever considered cleaning overhead with air rather than a broom?

Mr. E.: Yes, sir.

Chairman: Why did not you adopt the air method?

Mr. E.: Well, with an air method it is hard to get the pipes around. Then we found we had more trouble with blowing down than we did with cleaning with a brush. We thought one time we were going to clean overhead with air all the time, but after experimenting we found we did not like it.

Chairman: In your experience in cleaning overhead with a broom, does the man who cleans have to pay any attention to stuff falling into the loom?

Mr. E.: If he sees anything fall he knocks it off.

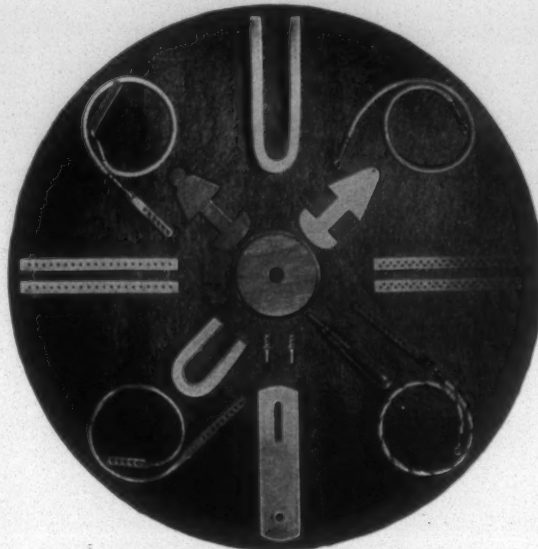
Chairman: When the overhead cleaner comes to a loom set, does the weaver more or less follow behind him and, if he sees that stuff fall into the warps on the back of the loom, pick that out?

Mr. E.: Yes, sir.

Chairman: Do you clean on all shifts?

Mr. E.: Two shifts, the first and the second. We do not clean on the third. We have been able to take care of it with just two men.

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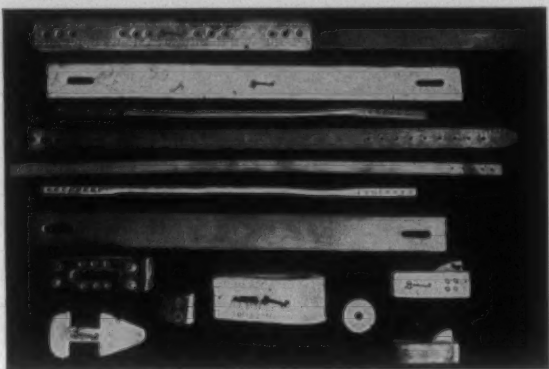


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Question: Does the cleaner do the overhead cleaning from the floor?

Mr. E.: He does it from the floor, with a long pole with a broom attached on it.

Question: How high is your ceiling from the floor?

Mr. E.: I would say 16 feet. We do have to do this; after a period of years we just change the man. After a period of years they do give out in the shoulders. We sweep down often. That is the bad part of it.

A Member: We used to follow the practice that when we got a new man in we would always put him on that job and if he stayed on at that we would give him something else to do.

Chairman: Is there anybody else here that cleans down that way?

Mr. N.: We clean that way and also use a mop. It takes about two weeks for them to get over. We blow down on only one shift. We have found in recent weeks that we have to cover up below where he is blowing down.

Question: Do you stop the machinery?

Mr. N.: No, we just cover up the machinery and let the looms run. We cover up, say, twelve looms. We have found that necessary since we installed last summer an air-changing system. The stuff sticks. It seems to be more moist and sticks on the ceiling and the air ducts, etc. Some of it you have almost to rub off.

Mr. E.: In connection with that, I should like to ask what relative humidity you use?

Mr. N.: Around 78.

Mr. E.: We have stepped ours up to around 70 to 75, and we find it much harder to get the stuff off.

Chairman: I was interested in your method. You blow before the cleaner and then mop to keep it from accumulating? Is that right?

Mr. N.: We blow first and then mop to get off what sticks and will not come off with blowing.

Chairman: Does anybody here still stop off a section to clean? Or, if you operate two shifts, do you have your cleaning done on the third shift, when the mill is standing, and have someone go along and pick the lint out of the warps? (No response.) Does anybody use just air and nothing else?

Mr. M.: Yes, sir. He cleans only a small portion at a time.

Mr. O.: Our mill has a regular wall brush which has bristles all around, so it will not scratch anything. If there is molding on the wall it cleans that all right, and it cleans around pipe, etc. We buy those brushes about once a year.

Mr. E.: I should like to ask the weavers who are here about how much air pressure the average weaver has.

Chairman: Mr. P., what air pressure do you have in your weave room, and do you blow down overhead with it?

Mr. P.: We have 75 pounds.

Chairman: Do you blow down overhead with it?

Mr. P.: Yes, sir.

Mr. O.: We have from 50 to 60 pounds.

Mr. Q.: We are experimenting with it right now.

Chairman: You mean experimenting with blowing down overhead?

Mr. Q.: No, sir.

Chairman: You mean experimenting with air for cleaning?

Mr. Q.: Yes, sir.

Chairman: It seems, Mr. E., from my experience, that you want an air pressure of from 75 to 100 pounds, if you can get it, and a nozzle not too big and yet big enough to do the work. If you take a 1/32" hole you have to put it too close. At the same time, I have never seen an air compressor big enough for a cotton mill. The answer to that is that people do not conserve air. They forget about the hose and forget about the nozzle on the hose, and after a while they have no nozzle on the hose at all and have no air. A superintendent has to pay attention to the air.

A Member: There is a big hazard in that air. In my experience on the road I have known of three fatal accidents from air pipes in cotton mills.

A Member: There has been one in the last three months.

Question: Do you have any trouble with water in the air?

Chairman: That does cause trouble. To keep water out of the air you have to do two things; you have to after-cool it and you have to trap the water out.

This has been an interesting meeting, but I am disappointed that more of the members did not take part in the discussion. I have this to say in closing; the better surroundings you give people to work in the better work you will get. The more respect you can create in an operator's mind for the product you make the more carefully will he work on that product. Whatever you are making, be it yarn or cloth, regardless of everything else in connection with your company, that is your most valuable asset. Without that you have no job and no excuse for being in the business. Talking of psychology again (and this is becoming a psychological age, gentlemen), anything you can do to make a man working in your plant have more respect for a pound of yarn or a yard of cloth will pay great dividends, because the more respect he has for it the more respectfully he will treat it. As to cleaning, as I said before, you can do a lot of it or a little of it. The thing you want to keep in mind is to do effective cleaning when you do it and to do it often enough so that your product, which is so dear to you, does not suffer on account of dirt. Beyond that, on account of the wage limit you almost have to stop.

I have enjoyed being here and have enjoyed the discussion. I hope you have gotten out of it as much as I have. If you did you will be back at the next meeting.

Chairman Pegram: Thank you, Mr. Holt.

Gentlemen, we appreciate your coming out today and entering into the discussion. I think it has been very beneficial.

If there is no further business to come up I will hear a motion to adjourn.

On motion, the meeting then adjourned.

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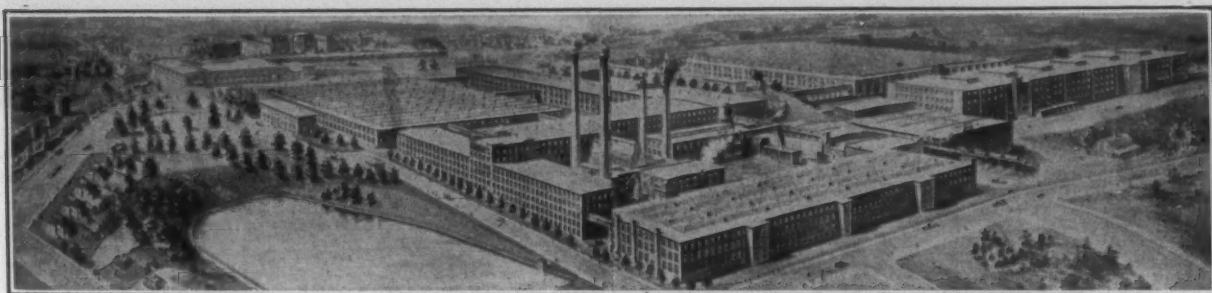
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Visiting the Mills

Intimate Glimpses of Activities in Southern Textile Plants and the Men Who Own and Operate Them.

By Mrs. Ethel Thomas Dabbs (Aunt Becky)

NORTH CHARLOTTE, N. C.

Highland Park Cotton and Silk Mills

We are sorry to learn that nothing was ever published about our delightful visit here some time ago and we shall do our best to make amends, though our notes have been misplaced.

There's more truth than poetry in that old saying, "Everybody is better treated than our own, though we love our own the best."

Certainly there are no people in the textile industry who are better friends to us than the good people of Highland Park Mills and they prove it by giving us a large list of subscriptions to *The Bulletin* every year, and the list grows larger each year, though the influence of progressiveness, under the leadership of General Superintendent Arthur Jarrett, and L. W. Green, superintendent of the silk mill (No. 1).

It has often occurred to us that we should give more attention to and more space to boosting the many nice textile mills in Charlotte. But we are tremendously proud of them, even if nothing much is said about it.

To those who knew Highland Park Mills 25 years ago, the transformation of the past few years is little short of miraculous. There is not a cleaner, more modern or better running spinning room in the entire textile industry than the one at the big Highland Park Mill, and other departments are all extraordinarily nice and clean.

Twenty-five years ago, hours were long, people were overworked, and cared little for appearances. But just watch them come out of the mills at 2 o'clock now, looking bright-eyed, full of vim and vigor, and as neat in appearance as a new pin.

North Charlotte people go to church, too, and take pride in their homes. They are excellent citizens, and the majority are interested in civic and self improvement.

L. W. Green is general overseer of carding in No. 3 and Superintendent of No. 1 (the silk mill); C. O. Wilson is overseer carding; Arthur Lewis, night carder; W. D.

Armstrong, overseer spinning; H. W. Fleenor, clerk; J. F. Tadlock, Leonard Marshall, S. L. Berryhill and M. L. Brackett are other key men.

W. B. Shannon is general overseer weaving; T. M. Brown, D. C. Yarborough and D. L. McCaskill, assistant overseers in weaving; J. L. Rice, R. B. Dawkins, A. L. Sides, J. H. Williams and others are second hands.

And what a fine group of loom fixers! G. H. Pickens, Archie Mayes, J. M. Brackett, J. W. Adams, L. A. Linker, M. M. Hulsey, W. H. Linker and J. C. Mills, head loom fixer, are just a few of them. Horace E. Monteith is time-keeper.

W. M. James is overseer the cloth room and L. A. Plyler is second hand.

C. H. Ogden is overseer drawing in; Lloyd H. Pope, overseer designing; —. —. Beaver, overseer dyeing; D. H. Anderson, production manager; I. B. McKeown, master mechanic.

Guy Fisher, G. B. Graham and J. U. Redmond are among the key men, but I've forgotten their positions.

At Mill No. 1 (the Silk Mill), W. E. Hopper is overseer carding; E. R. Lawing, overseer spinning, spooling and warping; E. G. Helmus, section man; H. M. Yandle, dyer, and E. B. Culp, master mechanic.

Superintendent Arthur Jarrett and his entire group of department heads all have our sincere thanks for a delightful visit to these splendid mills in North Charlotte.

ANNISTON, ALA.

The Anniston Mfg. Co. is undergoing some extensive repairs, improvements and additions, as follows: A new cloth room that will do justice to a mill, much larger than this one, has been completed, and a new Curtis & Marble shearing machine was installed, making the second one of this make. Tables and practically all the finishings were put in by M. W. Gilmer, the mechanic.

In the spinning room four additional new Saco-Lowell spinning frames, equipped with long draft, will be installed, as well as eight new Saco-Lowell cards, four draw-

ing frames and one slubber added to the card room.

In addition to the above, a new weave room extension, size 149 feet wide, 112 feet long, is being built. It is of mill type construction with a two-inch cork roof, for insulation against extreme heat or cold. This extension is built on a solid concrete floor with maple floor covering.

The writer had the pleasure of spending some time looking around, and found out some interesting facts concerning the superintendent, W. E. Erwin. Mr. Erwin tells me that he has been in this mill practically 52½ years. He began as sweeper, oil and banding, doffing, also ran four sides in spinning. From this job he ran drawing frames and was promoted to overseer carding. From this he held night superintendency up until ten years ago, when he was promoted to his present position. Most of the overseers have been here quite a long time, as follows: T. M. Daniel, overseer weaving, 11 years; J. W. Cox, carder and spinner, 20 years; M. W. Gilmer, master mechanic, 23 years; S. T. Daniel, overseer cloth room, 6 months, and U. G. Craft, supply man, 13 years.

Note.—Well, Mr. Erwin, I'll say this much with no excuses to offer: The picture was a total "flop"—no fault of the camera but a very bum roll of films which I am going to send you as proof.

CATEECHEE, S. C.

Norris Mills

This is one of the most picturesque spots in South Carolina. The mill is completely hidden under the hills till you get right on it. The entrance is in the top of the tower and you reach it over a high gangway.

Autumn was in all its glory and the mountains, rising high at back of the mill, made an awe-inspiring picture, painted in gorgeous colors.

Great improvements have been made here the past year, costing around \$50,000. Long draft and an overhead cleaning system are among the improvements.

W. W. Cobb, superintendent, is among the best, having 53 years of service in the textile industry—35 years as overseer and superintendent. He has been superintendent here 20 years.

He and Mrs. Cobb have reason to be proud of their large family of boys and girls. Most of them have completed their education and are making good in other localities. Two boys who finished at Clemson hold responsible positions; James E. Cobb is technician at Woodside Mill, Greenville, and W. C. Cobb is with Arnold, Hoffman & Co., of Charlotte.

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(Continued on Page 68)

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Visiting the Mills

(Continued from Page 65)

UNION, S. C.

Monarch Mills—Monarch and Ottaray Plants

Business is good at these mills and people are happy and friendly. T. M. McNeill has been superintendent here for many years—conclusive evidence of his efficiency.

At Monarch Plant, L. R. Champion is still overseer of carding and has a nice, clean, orderly department. Mr. Champion has many friends in the Carolinas.

W. T. Morton is the genial and competent overseer of spinning; T. W. Harrill, second hand, is a wide-awake young man who will make good.

Mr. Williams, for a long time overseer of weaving, has retired to his farm and is enjoying his "freedom." C. T. Gay, now overseer of weaving, was formerly of Pacolet, I believe.

E. P. McWhorter, for a long time master mechanic, has resigned, and R. F. Haynes, a very likable gentleman, is now on the job at both mills.

At the Ottaray Plant, Ansel McNeill, son of Superintendent T. M. McNeill, is overseer carding and spinning and John Mack is the splendid and genial overseer of weaving.

J. M. Bates is overseer cloth room for both mills, and "Aunt Becky" sincerely thanks him for his courteous escort over the big Monarch Mill.

These mills have a delightfully located Community House, nice churches and good schools, convenient to everyone. In fact, these are nice mill villages, with neat homes, fertile gardens and pretty flower yards, and Union is a splendid town in which to live and work.

CLINTON, S. C.

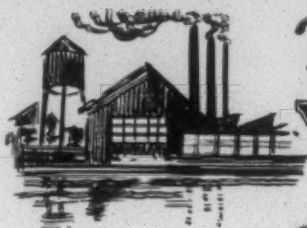
Clinton and Lydia Cotton Mills

Had a very pleasant trip to Clinton and Lydia Mills recently, where I was fortunate to catch Superintendent E. A. Hill in conference with Lydia overseers. They were in Mr. Hill's office in the basement, so I planked myself on the steps which they had to mount and caught them coming up.

J. H. Vanhollen, our loyal friend, is still overseer of carding, and genial J. R. Cobb is still spinner; S. B. Neal is weaver and C. L. Hurston in cloth room; R. L. Hammond, master mechanic, and "they say" a mighty good one.

At Clinton Mill, T. F. Weir is carder; M. Sanders, spinner; W. R. Thomas, slasher foreman; A. H. Hughes, weaver; S. E. Snellgroce, cloth room; J. J. West, superintendent power plant and shop (could not find him).

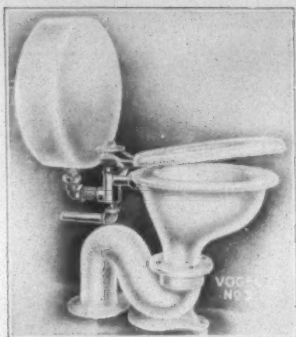
These mill villages have nice homes on good sized lots and are very attractive.



This...
VOGEL
PATENTED

Number 5

is the Mill and
Factory Closet



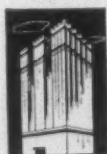
Designed for the hard and continuous wear of mill, mill village and factory use, their economy in water requirements and freedom from upkeep cost make **VOGEL No. 5 Closets** the

right closets for every installation, large or small. Simple in construction, long in life, they have proved their worth in thousands of mills and mill villages and factories everywhere.

Can be made semi-frost-proof by use of No. 1 valve.

JOSEPH A. VOGEL COMPANY
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To outstanding members of the textile industry, the Vanderbilt is home during their stay in New York. You, too, will enjoy this internationally famous hotel . . . because of its location, which combines the distinction of a Park Avenue address with the convenience of being adjacent to New York's textile center . . . and because of its luxurious accommodations and delicious food, which are so moderate in price.

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It all depends on
INDUSTRIAL PRODUCTION

Keeping American industry at peak efficiency means keeping America safe. Even a seemingly insignificant item like rings can be important. For with our Eadie lubricated styles mills are stepping up production 25%, 50% and even more on twisting cotton, rayon, silk and worsted, as well as on spinning wool. Even with conventional type rings for spinning cotton and staple rayon, there is usually a gain of 10% or more after replacing worn rings with new. Peak production is vital! Let Diamond Finish rings help you do your share 100%.

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Old Dominion maintains an art department and a creative staff for developing both individual and coordinated package designs. This service is yours without obligation.

Where a manufacturer has a line of products, coordinated packaging plays a vital part in his sales.

The identification that exists in "family units" increases brand recognition.

Through coordinated packaging the effect of advertising is carried over from advertised to non-advertised items.

Old Dominion Box Co., Inc.

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Mr. WORRY-WART doesn't
live here any more!



He's Mr. Easy-Going Now on Winter Week-Ends



Yeah, Man, No Ends Down Jitters for Me
with Dayco Roll Coverings on the Job

Dayco TEMPERED ROLL COVERINGS

Take the Grief out of Winter Shut-Downs

Many a Mr. Worry-Wart in textile mills throughout the nation has learned that Dayco Tempered Roll Coverings take the grief out of winter week-end shut-downs. Daycos eliminate ends down jitters—reduce “down” time and assure instantaneous start-up and top quality production after week-end

layoffs. Large and small textile mills know that they can do more and spend less with Dayco Tempered Roll Coverings—the one standard of year-round efficiency by which all others must be judged. So remember, *only Dayco Tempered Roll Coverings* have been proved under the rigorous service con-

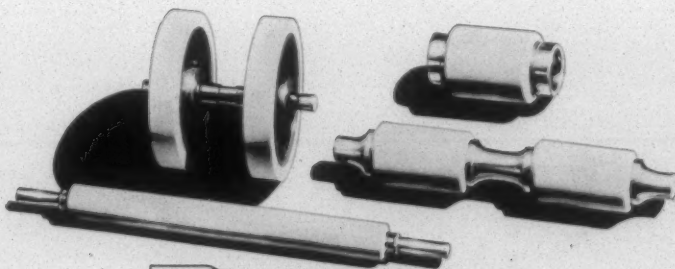
ditions of the nation's leading textile mills to serve longer—give greater finished yarn production—assure high standard uniform yarn and cost-less-per-month-of-use. Stop worrying—start grinning—go Dayco every day, every year.

THE DAYTON RUBBER MFG. CO.
TEXTILE PRODUCTS DIVISION, Dayton, Ohio
*The Originators and Pioneers of
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GREENVILLE SALES OFFICE
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ROLL COVERINGS ARE THE
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TOP-FLIGHT TEXTILE MILLS

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11. One piece tubular construction.
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Dayco TEMPERED ROLL COVERINGS—LOOM SUPPLIES

MADE BY THE WORLD'S LARGEST MANUFACTURER OF V-BELTS